



Enhancing Well-Being and Resilience Through Emotion Regulation Strategies: DBT Skills Training for Early-Career Midwives

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ABSTRACT

Midwives operate in emotionally demanding environments, involving complex interpersonal interactions and substantial work-related stress. This can be accompanied by risks of burnout, challenges to well-being, and retention issues, particularly among Early Career Midwives (ECMs). Despite extensive literature on sustainability challenges in the profession, research on emotion regulation (ER) abilities and targeted interventions remains limited. This pilot study evaluated the feasibility and preliminary efficacy of a psychoeducational Dialectical Behaviour Therapy Skills Training (DBT-ST) intervention, adapted for ECMs, to cultivate ER strategies within midwifery practice.

The study was originally designed as a two-phase sequential design, incorporating a quasi-experimental pretest-post-test with follow-up, followed by a qualitative phase. However, COVID-19 related constraints necessitated a reduction to a pretest-post-test-only design, limiting the ability to assess longer-term intervention effects. The study utilised the Difficulties in Emotion Regulation Scale (DERS), Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), Emotional Labour Scales (ELS), Maslach Burnout Inventory (MBI), and Connor-Davidson Resilience Scale (CD-RISC) to measure outcomes. The intervention was delivered online over six weeks to ECMs at a National Health Service (NHS) maternity service.

Findings demonstrated significant improvements in ELS scores and reductions in emotional exhaustion (MBI subscale), suggesting some positive changes in ER abilities. However, no significant changes were observed in DERS or MSCEIT scores, indicating that key ER challenges remained unaddressed. The reliance on an online format, small sample size, and the absence of a follow-up phase may have influenced these findings, suggesting the need for a more intensive or extended approach to achieve sustained ER improvements.

The study provides preliminary evidence on the feasibility of DBT-ST within midwifery, but highlights limitations in intervention delivery, study design modifications, and measurable outcomes. Future research should explore larger samples, longitudinal designs with follow-up, and in-person delivery to optimise effectiveness and assess the long-term impact of DBT-ST on midwives' emotional well-being in stable working conditions.

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Chapter 1. Introduction

1.1. Introduction

Providing emotional support to childbearing women and their families is fundamental in midwifery. However, managing emotions within the context of a highly pressurised National Health Service (NHS) often leads to professional exhaustion (Hunter 2005; Hunter and Deery 2005; Crowther et al. 2016). Burnout is an internationally recognised concern across all models of midwifery care and career stages (Yoshida and Sandall 2013; Dawson et al. 2018; Welford 2018; Hunter et al. 2019; Cull et al. 2020). Early-Career Midwives (ECMs) are especially vulnerable, with literature indicating that midwives are most likely to leave the profession within the first five years after registration (Cameron 2011; RCM 2016a; Hunter et al. 2017; Harvie et al. 2019; Cull et al. 2020).

Midwifery practice is characterised by intense relationships with women and their families, requiring the ability to manage interpersonal and professional relationships effectively. This emotion work (Hunter 2001) is central to the profession but can contribute to secondary traumatic stress, burnout, and compassion fatigue (Ruttan et al. 2015; Creedy et al. 2017; Wright et al. 2018). Workplace adversity, compounded by resource constraints and staffing shortages, places additional strain on midwives' emotional well-being. In the United Kingdom (UK), midwives report some of the highest levels of personal and work-related burnout (Ball et al. 2003; Creedy et al. 2017; Cramer and Hunter 2019; Harvie et al. 2019).

ECMs face particular challenges in this context. The vulnerability to workplace adversity is exacerbated by the anxiety and stress of developing their competencies and integrating into the professional culture in often complex working conditions. Building and managing relationships with colleagues and women in their care, while gaining confidence and bridging the theory-to-practice gap, can further increase ECMs' vulnerability to the costs of caring in their professional relationships (Leinweber and Rowe 2010). Insufficient skills in emotion regulation (ER) may heighten vulnerability to burnout, reducing professional confidence and well-being (Cull et al. 2020).

Midwifery scholars have argued that the emotion work inherent in 'being with woman' requires the management of emotions, an essential but largely invisible skill in the caring profession, affecting the quality of care provided (Hunter 2001; Hunter 2010; Deery and Fisher 2010; Cramer and Hunter 2019). This emotionality of care links workplace adversity with low emotional well-being (Hunter et al. 2008). Inadequate skills in ER and relationship management can increase

midwives' vulnerability to burnout and attrition. Although efforts to improve midwifery resilience have included mindfulness, psychological supervision, and resilience workshops, few interventions directly address ER abilities as a well-being factor (Pezaro et al. 2017), and evidence-based interventions tailored for midwives remain limited.

Despite the centrality of emotions in clinical practice, research on midwives' ER abilities remains scarce. While previous studies have explored burnout and emotional labour in midwifery, there is a lack of empirical evidence on how midwives consciously and unconsciously regulate their emotions (Hunter 2001). The absence of targeted interventions addressing ER in midwifery highlights a significant gap in the literature. Existing strategies, such as mindfulness and psychological supervision, focus on resilience rather than the explicit development of ER abilities (Pezaro et al. 2017). Addressing this gap is essential to improving midwives' emotional well-being and professional sustainability.

In response to this gap, this study explores the potential application of Dialectical Behaviour Therapy Skills Training (DBT-ST) as a psychoeducational intervention for ECMs. DBT-ST, originally developed by Linehan (1993) for clinical populations, has recently been expanded to non-clinical populations as a universal intervention across various professional and educational settings. Its versatile programme includes a comprehensive manualised curriculum that comprises four ER skill domains. These include core mindfulness skills that develop awareness of emotions of self and others. ER skills that develop emotional acuity and management of emotions in self, along with recognition of these emotions in relationships. It also includes distress tolerance techniques to manage acute emotional states. The DBT-ST curriculum is flexibly adaptable to meet the specific needs of everyone (Psychwire 2019). Furthermore, the structured curriculum aligns with the emotional intelligence model (Mayer and Salovey 1997), which predicts psychological well-being (Psilopanagioti et al. 2012; Grant and Kinman 2014; Martin and Edgar 2019). This thesis argues that DBT-ST offers a novel, evidence-based approach for enhancing midwives' ER abilities, thereby supporting their emotional well-being and resilience in practice.

1.2. Research Problem and Rationale

The emotionally demanding nature of midwifery necessitates effective ER strategies to mitigate burnout and enhance professional well-being and professional resilience. While studies document high levels of burnout, there is limited empirical research on midwives' ER abilities and their influence on decision making, workplace relationships, and psychological well-being

(Lerner et al. 2015; Koslowski et al. 2017). The absence of targeted ER interventions tailored to midwifery further reinforces the need for an innovative, structured approach.

This study investigates the feasibility and preliminary efficacy of a DBT-ST intervention for ECMs. Given DBT-ST's established role in developing ER skills across non-clinical populations, its application to midwifery presents a promising avenue for addressing midwives' emotional challenges. By exploring DBT-ST's suitability in this context, this research contributes to the broader discourse on enhancing emotional well-being in midwifery.

1.3. Research Gaps

This thesis aims to address the gap in empirical research on ER in midwifery and the limited focus on emotional intelligence within the profession. While midwifery literature extensively explores burnout and emotional labour, studies measuring individual differences in ER abilities remain absent. Furthermore, no prior research has examined the feasibility of DBT-ST as an ER intervention for midwives. By introducing DBT-ST to the midwifery context, this study expands the evidence base and informs future professional support strategies.

1.4. Theoretical Framework

The study's theoretical framework integrates key models from ER and emotional intelligence literature. Grandey's model of emotional labour (Grandey and Sayre 2019) provides insight into the regulation of workplace emotions, while Mayer and Salovey's emotional intelligence framework (Mayer et al. 2016) underpins the study's conceptualisation of ER as a well-being factor. Linehan's DBT (1993) further informs the intervention's structure, supporting the development of ER skills relevant to midwifery practice. This is considered an essential step in maintaining resilience during the early stages of career practice. These theoretical perspectives collectively contextualise the study's approach and align with existing healthcare scholarship.

1.5. Aim and Objective

The primary aim of this research is to assess the feasibility of implementing DBT-ST as a psychoeducational intervention to enhance ECMs' ER practical abilities. The study seeks to establish a proof of concept for applying a psychoeducational DBT-ST intervention within midwifery. The primary objective is to assess whether DBT-ST can improve ECMs' well-being

factors, with an anticipated impact on ER, emotional labour, burnout, resilience, and emotional intelligence. This foundational research aims to inform future approaches to addressing midwives' ER needs and psychological well-being.

1.6. Methodology and Methods

The study employed a quasi-experimental, mixed methods approach, incorporating pre- and post-test measures of ER (Difficulties in Emotion Regulation Scale (DERS)), burnout (Maslach Burnout Inventory (MBI)), emotional labour (Emotional Labour Scales (ELS)), resilience (Connor-Davidson Resilience Scale (CD-RISC)), and emotional intelligence (Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT)). Initially designed as a two-phased sequential study, the methodology was adapted due to logistical constraints during the COVID-19 pandemic. The intervention was delivered to a cohort of ECMs, assessing its feasibility and preliminary effects on ER abilities.

1.7. Significance of the Study

This study is the first to pilot DBT-ST in the midwifery profession and one of the few to apply DBT-ST to non-clinical populations in healthcare. While DBT-ST has traditionally been used for individuals with complex mental health disorders and transdiagnostic clinical populations, its application has recently expanded to non-clinical settings, such as education, highlighting its universal utility.

The findings contribute to the understanding of ER in midwifery by introducing ER strategies from the DBT-ST curriculum to support ECMs' capacity to manage the emotionality of care and professional relationships. This study also uniquely collects data on emotional intelligence and ER challenges specific to ECMs, addressing a gap in midwifery literature. By broadening DBT-ST's application to a healthcare context, the research offers a foundation for future interdisciplinary studies exploring DBT-ST's universal adaptability for supporting professional well-being.

1.8. Thesis Structure

Chapter 2: Context

Chapter 2 outlines the historical developments of the midwifery profession and the major changes to the organisation of care and models of practice across time. It sets the context in which modern midwifery is practised in the UK, to consider the origins and current

understanding of job dissatisfaction within the literature. The chapter aids the formulation of the long-standing problems of the emotionality of relationships as key factors that affect emotional well-being.

Chapter 3: Scoping Review

Chapter 3 provides a scoping review of the midwifery literature on well-being and its challenges in the profession. The review maps the emerging themes into common categories. Through a synthesis of the literature, the review highlights the importance of emotional regulation and relational skills, these being essential to sustaining midwifery practice and improving professional and personal outcomes. The review sets the foundation for ER strategies and how interventions like DBT-ST can address modifiable aspects to enhance midwives' emotional regulation, as explored in the following chapter.

Chapter 4: DBT-ST for Midwives

Chapter 4 introduces DBT-ST, proposing this approach to address ER challenges in the profession. The chapter also provides a critical review of DBT-ST interventions.

Chapter 5: Theoretical Framework

Chapter 5 provides the theoretical framework that underpins psychological concepts and models that intersect with the phenomenon of well-being in midwifery. It builds a model that supports the application of ER through DBT-ST. This chapter aims to build an understanding of how the theories and models combine to address the key problems of low emotional well-being.

Chapter 6: Study Approach and Planning

Chapter 6 is a prequel to the methodology and methods chapter. It provides the rationale for the piloting of the study protocol. It also details the challenges faced by the researcher in gaining access to the field in the context of the COVID-19 pandemic.

Chapter 7: Methodology

Chapter 7 provides the rationale for the methodological choices applied to the pilot study. Overarching methodological assumptions are discussed. The chapter also justifies the use of the study design and why it was most appropriate for this research. The chapter also includes modifications to the study design.

Chapter 8: Methods

Chapter 8 provides details of the methods applied in the pilot study. The chapter outlines the research design, participant selection, and analytical methods employed. It details the use of the ELS, MBI, CD-RISC, DERS, and the MSCEIT to measure outcomes. This includes details of the research process, modifications, justification of recruitment, data collection, analysis method, and ethical considerations.

Chapter 9: Findings

Chapter 9 provides the quantitative findings of the pilot, including quantitative analyses of the ELS, MBI, DERS, CD-RISC, and MSCEIT scores pre- and post-intervention. It discusses the statistical significance and practical implications of the results.

Chapter 10: Discussion

Chapter 10 interprets the outcomes of the study within the context of existing literature on ER factors and DBT-ST effectiveness. It evaluates the strengths and limitations and explores the implications of the findings. The chapter also incorporates the researcher's critical reflection on the methods and outcomes of the study.

Chapter 11: Conclusion

Chapter 11 synthesises the findings from the pilot study. It reviews the study's limitations and outlines future research directions, relating these to the existing literature. The chapter discusses implications for midwifery practice and the wider healthcare context, highlighting the contribution of this research to midwifery knowledge and its relevance to interdisciplinary studies.

Chapter 12: Recommendations

Chapter 12 outlines structured recommendations derived from the findings and limitations of the pilot study. It aims to guide future research and practical applications by enhancing methodological rigour and addressing key challenges identified in the study.

1.9. Contribution to Knowledge

The goal of this thesis is to make an original contribution to knowledge by extending existing research on the effects of workplace adversity on the emotional labour of midwives. It seeks to justify, formulate, and clarify the premise that workplace adversity is centred on the emotionality of relationships that require ER abilities. This emotional work of midwives requires the

management of emotions, interpersonal effectiveness, and the ability to manage distress. This approach builds on existing midwifery and healthcare research to develop a new method for building resilience in ECMs, helping to reduce job dissatisfaction and prevent them from leaving the profession.

1.10. Definitions

Dialectical Behavioural Therapy (DBT): A combination of Cognitive Behavioural Therapy and acceptance and change therapy that aims to provide individuals with the ability to cope with stress, regulate emotions, and improve their relationships with others.

Emotional Intelligence (EI): The ability to perceive, control, understand, interpret, and evaluate emotions in self and others.

Emotional Labour: The process of managing emotions and expressions to fulfil the emotional requirements of a job despite an individual's actual emotions. This is done through: suppression, surface acting or initiation of emotions, and deep acting.

Emotion Regulation (ER): The ability to manage emotional responses in self and others.

Emotion Work: The unacknowledged and unremunerated emotional engagement involved in the depth of care between a midwife and the childbearing woman.

Interpersonal Effectiveness: The ability to navigate social environments and maintain positive relationships while balancing their own needs with the demands and needs of others.

Resilience: The ability to withstand and bounce back from adversity.

1.11. Summary

The present chapter has established the premise aligned with the context and the core arguments of the research and thesis. The inquiry aims to support the implementation of a novel approach that promotes factors of well-being through the introduction of the universal application of DBT-ST, specifically, its applicability to midwifery and ECMs. This thesis is intended to establish proof of concept. The following chapter presents the professional and historical context of midwifery in the UK.

Chapter 2. Context

2.1. Chapter Overview

This chapter establishes a foundational understanding of the aetiology of current challenges in midwifery in the United Kingdom (UK). It describes the evolution of midwifery and how the profession has progressed over time. In doing so, it contextualises the origins of the ongoing challenges to well-being that will be further explored in Chapter 3. The chapter begins by examining the historical professionalisation of midwifery, followed by the major government initiatives that have influenced practice. This exploration reveals persistent challenges and traces their developments over time. The focus is on understanding job dissatisfaction and identifying emerging themes that can inform strategies to support Early-Career Midwives' (ECMs) well-being and resilience in the face of workplace adversity.

2.2. A Brief History of Midwifery Professionalisation

2.2.1. Historical Background

Through the centuries, women who attended birth used practices that had been handed down through the ages. It was not until the late 1800s that Zepherina Veitch, a nurse trained as a midwife in London, established the Midwives Institute. She also petitioned Parliament to introduce regulation for lay midwives, aiming to reduce birth-bed fever and lower neonatal mortality rates. In 1881, she established the Trained Midwives Register Society. Two decades later, the Midwives Act of 1902 formally recognised midwifery as a profession, shaped and overseen by the medical establishment (Heagerty 1997; Fleming 1998).

2.2.1.1. *The Midwives Act of 1902*

The Midwives Act of 1902, enacted in England and Wales, marked the end of the lay self-employed midwife and ensured the training and regulation of midwives. The regulatory board established by the Central Midwives Board (CMB) required midwives to follow training to obtain certification to practise (Leap and Hunter 1993). The board was composed of medical doctors who developed the statutory framework, including supervision of their practice via the Local Supervisory Authority (Dale and Fisher 2009). These regulations were aimed at reducing the risk of unsafe practice and imposing a medicalised model of care for perinatal women. They also had the effect of reducing professional autonomy for midwives going forward (Flint 1993). Due to insufficient numbers of medical and qualified midwives, lay self-employed midwives were initially allowed to register if they were deemed of good character (known as *bona fides*). These

midwives were allowed to work in the community setting under the supervision of sanitary inspectors (Leap and Hunter 1993; Dale and Fisher 2009). When adverse events or low standards of hygiene, or moral and ethical character, were identified, the inspectors would inform the CMB and the midwife concerned would have her name taken off the register and would no longer be allowed to practise as a midwife (Leap and Hunter 1993).

2.2.1.2. The Midwives Act of 1918

The Midwives Act of 1918 was a pivotal moment in midwifery autonomy because it introduced the requirement to call a medical practitioner in the case of an emergency (Fleming 1998). Any midwife who disobeyed would be suspended following a case hearing. According to Heagerty (1996), this had the effect of bringing midwives under the umbrella of the medical and nursing profession.

2.2.1.3. The Welfare State

After the introduction of the welfare state by the Labour government, the National Health Service (NHS) in 1948 provided the public with free healthcare. Midwives continued to practice predominantly in the community setting. It was not until The Peel Report 1970 (DHSS 1970), followed by the Short Report 1980, that the National Health Service (NHS) implemented efficiency measures and recommended that 100% of births be conducted in the hospital setting (Deery 2005). These reports also aimed to reduce adverse birth outcomes and make birth safer (Tew 1998).

The NHS Reorganisation Act 1973 united the remaining community midwifery services with hospital-based midwifery (National Health Service Reorganisation Act 1973). This act introduced major reforms that further embedded the notion of risk as central to the perinatal period (Thompson and Lewis, 2013). Medical and nursing professionals began to formulate standardised protocols and guidelines. Murphy-Black (1992) described the fragmentation of midwifery practice and the increasingly distant concept of continuity of care. The hierarchical structure of the NHS, alongside the dominance of the medical profession, divided midwifery practice into separate services and contributed to the erosion of continuity of care and carer. Midwives working in community settings retained some agency through continued involvement in antenatal and postnatal care. In contrast, those based in hospitals experienced reduced autonomy due to their positioning as a subset of the nursing profession (Sargent, 2002). The systematisation of childbirth and midwifery practice was further consolidated through the widespread adoption of a medicalised model of care (Tew, 1998).

2.2.1.4. UKCC

The CMB was dismantled when the United Kingdom Central Council for Nursing and Midwifery (UKCC) was established in 1983. The Royal College of Midwives (RCM) considered this development an improvement, as it transferred the statutory control from the medical profession to the Standing Midwifery Committee. Midwives formed the majority of this committee's members. However, they remained a minority in the nursing-dominated UKCC.

While these changes led to considerable improvements in women's health, they also presented significant challenges that undermined midwives' autonomy. These challenges will continue to exist in the future, as midwifery has remained a subset of the nursing profession in many countries. Although considerable improvements will be gained through time, with governmental initiatives initiated by women-led lobbies through the reintroduction of continuity of care models, the hierarchical structure that confines their practices remains. These structures have brought with them challenges to well-being, which persist to this day.

2.3. Historical Policy Changes and Their Wake

2.3.1. Introduction

As government initiatives sought to increase efficiencies in the National Health Service (NHS) and the safety of childbearing women, recognising the importance of supporting women's choices in maternity care was essential. This emphasis on individualised care, autonomy, and personalised care has led to an evolving landscape and a diversification of the midwife's role. Initiatives promoting continuity of care have not only improved efficiency and the quality of maternity care, but have also increased the autonomy of midwives. While these changes have yielded positive developments, they have also brought ongoing challenges. Notably, workload pressures, exacerbated by rising birth rates and complexities in healthcare, have highlighted the need for ongoing support and attention to the well-being of midwives. Furthermore, staff shortages and regulatory standards have escalated the expectations placed upon midwives. Managing these requirements, alongside clinical responsibilities, has become demanding and contributed significantly to the overall workload pressures.

The nature of maternity care, especially in high-stress situations or when dealing with complex medical cases, has taken an emotional toll on midwives. Additionally, budget constraints and resource allocation challenges have impacted the ability of midwives to deliver optimal care. Consequently, midwives face multiple challenges, including those related to workload, practice

settings, collaboration, professionalisation, technology integration, cultural competence, and emotional well-being. These factors collectively influence the working conditions and job satisfaction of midwives, highlighting the need for comprehensive strategies to address these problems effectively.

2.3.1.1. The Griffiths Report

The Griffiths Report (DHSS 1983) hailed the introduction of the business model into the NHS to address financial efficiencies. Consequently, medical professionals were compelled to relinquish part of their control over budgetary matters in the NHS. This shift saw administrators move to management, while health professionals such as midwives and nurses remained part of the frontline workforce. However, the imposition of performance indicators and targets introduced time-related pressures on midwives' practices, which affected their experiences of workplace resilience. To increase efficiency and meet budgetary targets, responsibilities were delegated to lower-graded personnel. Midwives saw their scope of practice develop; however, the increased responsibilities and accountability were not met with enhanced remuneration (Sargent 2002).

As government initiatives sought to increase efficiencies, women began to raise concerns over the lack of choices they were left with within the medical model of childbirth. They lobbied, through consumer groups, for policy changes that would allow more woman-centred care (Oakley 1994). The Griffiths Report also emphasised the importance of service users at the forefront of care, which allowed women to voice their concerns (Sargent 2002). Groups such as the National Childbirth Trust (NCT) played a significant role in the inquiry into maternity services. Their involvement was primarily aimed at recognising women's choices and rights to have control over their bodies. Over time, the scope and role of the midwife had been eroded, largely dominated by the medical profession. This domination decreased midwives' autonomy, as the medical model sought to systemise perinatal care to reduce its risks to women and their families (Sandall 1995).

The biomedical model stands in direct contrast to midwifery ideology, which emphasises birth as a natural and normal process, whereas the medical model of childbirth considers the birth process to be safe only in retrospect (van Teijlingen 2005). Medical practitioners, in their attempts to reduce perinatal adversity, increase interventions to control risks in pregnancy (van Teijlingen 2005). The medical perspective that focuses primarily on risk stands in contrast to the socially constructed model that considers pregnancy as a normal process (Sandall 1995; van Teijlingen 2005).

With the growing discontent over the medicalisation of childbirth, which had led to a systemised and fragmented model of perinatal care, research evidence began to raise questions over the cost and effectiveness of centralised maternity care (Sandall 1995). Furthermore, Sandall (1995) highlighted evidence from the World Health Organization's report (WHO, 1985) which described the negative impact of increased medical interventions on childbirth and maternal morbidity. She further highlighted evidence indicating that a number of interventions not only have no proven benefits, but can also cause harm (Sandall 1995).

This emerging evidence encouraged women and pressure groups, including the National Childbirth Trust (NCT), the Association for Improvements in Maternity Services, and the Association of Radical Midwives, to campaign for more control through the advocacy of woman-centred care. International research findings demonstrated the cost-effectiveness and increased satisfaction of women with midwifery-led care. Consequently, the House of Commons Health Committee on Maternity Services was established in 1992 (Bradshaw and Bradshaw 1997). The Winterton Committee, in consultation with the RCM, produced a report that outlined key recommendations from consumer groups on woman-centred care. These recommendations followed the principles of choice, control, and continuity of care (Pope et al. 2001).

Finally, the Winterton Report recognised:

“The right of the midwives to practice their profession in a system which makes full use of their skills to provide full clinical care throughout pregnancy, labour, at delivery and in the postnatal period and which respects their legal accountability” (House of Commons 1992 cited in Sargent 2002, p.53).

The evolving landscape of maternity care, highlighted by these significant developments and advocacy efforts from midwives and consumer groups, marked a pivotal shift towards recognising the voices of women. The collective actions have also paved the way for a more inclusive woman-centred care model. This paradigm shift highlighted the importance of women's autonomy and acknowledgement of their right to make informed choices about their birth experiences.

2.3.1.2. *Changing Childbirth*

Changing Childbirth (Department of Health 1993) identified targets for maternity services to achieve within five years, which added to the challenges brought about by ongoing organisational changes. These targets were aimed at increasing midwifery autonomy, accountability, and responsibility, in order to reduce fragmented care and enhance woman-

centred care to improve satisfaction rates. The report introduced continuity of care models for women through case-loading and team midwifery schemes (Sandall 1995; Sandall 1999). Flint et al. (1989) suggested that the increased responsibility and accountability within the expanding sphere of midwives' practice would also increase autonomy, an important factor in job satisfaction, as fragmented care was linked to lower job satisfaction. Although Kirkham (2002) concurred with these new opportunities, she suggested that the challenges were also to develop midwifery ideals within the limited resources and budgetary constraints of the National Health Service (NHS). Kirkham (2002) recognised that midwifery education prepared midwives to fully undertake their responsibilities in the provision of woman-centred care. However, studies revealed that complexities and variations in the implementation of the recommendations of *Changing Childbirth* were not restricted to the budgetary constraints in maternity services, but included a lack of acceptance and commitment on the part of midwives themselves (Pope et al. 2001; Todd et al. 1998; Wraight et al. 1993). Pope et al. (2001) concluded that continuous education was key to developing midwifery expertise amid service changes and role expansion.

2.3.1.3. Better Births 2016

The National Maternity Review, led by Baroness Julia Cumberlege, was commissioned by NHS England in March 2015 and resulted in the *Better Births* initiative (NHS England 2016). This initiative reinforced the importance of women's needs and choices in their personalised care. Similar to previous initiatives, it advocated for the continuity of care model by designating a named midwife responsible for implementing care in both hospital and community settings. Reflecting on the lessons from *Changing Childbirth* and the past challenges regarding the implementation of continuity of care models, the review highlighted concerns regarding ongoing staffing levels and the need for reform of the funding and commissioning structures within maternity services. Five years after this report, amidst the global COVID-19 pandemic, Francis (2021) argued that rising levels of burnout were caused by the marketisation of NHS care introduced in the 1980s. She also contended that ongoing staff shortages, midwives' resistance to on-call work, and service pressures were key barriers to progress in re-establishing continuity of care models. The portrayal of midwives as barriers raises questions about dialectical dilemmas in the profession. According to some views, the organisational structures and the role of the midwife appear to be impediments to meeting women's needs and choices. The dichotomous representation of this argument leads to midwives being unfairly blamed by their own representatives and overlooks midwives' personal needs.

2.4. Early Care Models

Prior to *Changing Childbirth* (DOH 1993), midwives were community-based carers for women in the antenatal and postnatal period and attended homebirths. Hospital midwives cared for women during labour and high-risk antenatal and postnatal hospital stays. The separation of hospital and community midwives resulted in fragmented care, which increased midwives' lack of agency (Mackin and Sinclair 1998). Fragmented care also resulted in midwives specialising in certain areas, and care becoming task-oriented. Hospital midwives were found to struggle with workload factors, lack of time to care, copious record-keeping, and under-utilisation of midwifery skills (Mackin and Sinclair 1998).

2.4.1. Integration Model of Care

Research has identified that the major factor in job dissatisfaction was fragmented care. Poor continuity of care and carer was found to be a cause for dissatisfaction for midwives and women respectively (Murphy-Black 1992; Sandall 1995). Improvements in continuity of care would allow midwives to gain confidence in the full range of their skills. This in turn would give them greater responsibilities and therefore increase their job satisfaction (Flint et al. 1989; Murphy-Black 1992; Sandall 1995). Moreover, Murphy-Black (1992) identified that the continuity of care model would bring improved recruitment and retention in midwifery, as it enabled midwives not only to utilise the full range of their skills but also to increase their professional autonomy in practice. With the new recommendations, maternity services established the integration model of care to increase the continuity of care, which included labour care for community midwives. This resulted in the integration of community midwifery services with those of maternity hospitals. In this way, midwives in the community would follow women throughout their pregnancy, requiring them to utilise the full range of their midwifery skills.

2.4.2. Team-Midwifery Scheme

As new models of care were introduced to address fragmented services, research highlighted the emerging potential and practical challenges of implementing continuity schemes. Flint (1986) reported findings that a team midwifery scheme ("Know Your Midwife") was feasible and sustainable with as few as four midwives holding a caseload of 503 low-risk women. A Cochrane review completed in 1995 found that the case-loading model of midwifery increased service user satisfaction and decreased obstetric interventions. They argued that continuity of care was considered a way to improve professionalism in midwifery by increasing their professional autonomy within the NHS-dominant medical model of childbirth (Flint 1986; Sandall 1995; Sandall et al. 2016). Team midwifery schemes required a 24-hour rota. In addition to contracted

hours, midwives were also expected to be available for “on-calls”, which Sandall (1997) argued generated the most dissatisfaction amongst staff. Nevertheless, team midwifery schemes were initiated across the United Kingdom and maternity services applied different configurations of these models in the NHS from the mid-1980s.

2.4.3. Research of CoC Models

Although preliminary evidence was extremely positive (Flint 1986), the sustainability involving human factors (midwives) of these models had not been fully assessed through research evidence. For example, midwives working within the continuity of care model endured continued demands for personal flexibility as well as flexibility within the service itself (staffing levels). In addition, a continuous service implying flexibility in working patterns and staff availability was difficult to achieve with the ongoing staff shortages. For midwives, this can make the balance of family and working lives difficult to manage and sustain.

With these difficulties in mind, Stock and Wraight (1993) raised concerns with on-call duties amongst midwives, noting that such on-calls disrupted family lives and often led midwives to be called to women they did not know. Indeed, Sandall (1997) identified that the majority of team midwifery schemes were not attaining continuity of carer. Furthermore, midwives working within these schemes reported developing symptoms of burnout. Eventually, team midwifery was found to have more fragmented care, with midwives complaining of a lack of autonomy, predictability, and controllability as factors that increased anxiety and stress (Sandall 1997).

In a further study, Flint et al. (1989) conceded that, due to the small trial size of their 1986 study, they were unable to distinguish between the personality and motivation of the midwives involved and the realities of the scheme itself. They also identified flexibility, long hours, and on-calls as problematic. They speculated that an increase in team members (from four to six midwives) would compensate for these difficulties. At the same time, they warned such changes would decrease the continuity of care (Flint et al. 1989). McCourt et al. (1998) argued, however, that team configuration was vital and that smaller numbers of midwives helped increase job satisfaction and lowered attrition rates.

However, Porter (1997) posited that one-to-one team midwifery was an expensive luxury. This dilemma identified structural and managerial constraints of team midwifery schemes. Sandall (1995) and Curtis et al. (2006a) highlighted how large organisational structures, such as the NHS, and maternity service policies with ongoing staff shortages, can result in unrealistic expectations. The feasibility of sustaining team configurations for continuity of care, beneficial for women and their babies, contrasts with the challenges of maintaining continuity of carer under these

constraints. Moreover, due to rising staff shortages and sickness rates, midwives had to be called to fill and manage rota gaps, further impacting the continuity of carer model.

The reality of staff shortages in maternity services increased midwife workloads, further impacting the model. Sandall (1995) recognised that professionals who provided continuous care were at risk of occupational stress and burnout syndrome (McCourt et al. 1998). Subsequently, Todd et al. (1998) found the majority of team midwifery schemes were short-lived, as they posed logistical difficulties for maternity services, most notably deficient staffing levels that resulted in midwives developing increased levels of stress. These early models of continuity of care developed through team midwifery changed the way midwives practised. However, Murphy-Black (1992) concluded that the concept of continuity of care had, in the first instance, been poorly defined.

Nevertheless, other schemes attempted to address these issues by widening the case-loading model. However, continuity of care models such as team midwifery were unable to be sustained. In their study on team midwifery, Todd et al. (1998) found that women might have been seen by up to eight different midwives during their pregnancy. Their research, involving 92 midwives, revealed that, while 89% considered the concept of team midwifery as positive, the majority believed that it was not effective. They observed that, rather than increasing continuity, it resulted in the unintended consequence of fragmenting care (Todd et al. 1998). Participants in the study noted that they experienced better relationships with women when community midwives were in charge of antenatal and postnatal care (Todd et al. 1998). Conversely, Todd et al. (1998) also found that younger community midwives valued the increased use of skills in this model but conceded their prior working model was more conducive to social and family lives, and recommended reducing the numbers in their caseload as well as reducing on-calls and labour ward shifts. Unsurprisingly, few countries to date have successfully managed to implement midwifery continuity of care as standard practice on a national scale (Bradford et al. 2022).

2.5. Adapting to Change

Midwives across the years have resiliently adapted to changes in their profession. Midwifery practice has progressed from home-based community care, through hospital-based and hybrid models, to the current professionalised emphasis on continuity of carer. Where the professionalisation under the medical model stripped away their autonomy, these recent developments provided renewed hope of regaining what they had lost over the years. Continuity

of care is, in essence, woman-centred and rooted in midwifery ideology, and emphasises autonomy of professional practice. In reality, however, its practical implementation was hard to reconcile with the realities and complexities of modern organisational and familial commitments. Equally, it raised once again the intractable “caring dilemma” and the female identity that Hilary Graham had argued was not only a professional identity but included women’s unpaid work at home (Reverby 1987; Graham 1991). Midwives who have caring duties both at home and at work have experienced the most challenges adapting to these changes.

These changes have brought notable benefits. For example, McCourt et al. (1998) found that continuity of care was associated with increased job satisfaction. Yet, Todd et al. (1998) reported that only half of the midwives in their team-based model remained for more than two years, indicating potential retention challenges. In contrast, Stevens and McCourt (2002) found that attrition rates in their study were lower than in other midwifery teams. They argued that autonomy was a central concern for midwives, and that case-loading models could help restore a sense of professional control. However, they also acknowledged that such models required personal flexibility, including childcare, family (partner) arrangements, and a willingness to work additional hours if needed.

While midwives with family dependents struggled to balance the increased demands, younger midwives and ECMs thrived with the increased autonomy and flexibility that continuity of care provided. A review of these schemes by Green et al. (1998) indicated that younger midwives had increased satisfaction with women-centred care which increased their control over their work. Moreover, younger midwives found gratification in achieving a sense of fulfilment within their role, with greater autonomy and flexibility. However, Sandall (1999) highlighted that these less experienced midwives were at higher risk of emotional exhaustion and burnout. This heightened risk was attributed to the rhythm and cadence of demand combined with a lack of experience in managing the emotionality of care and family life balance (Hunter 2001; Fleming 2006; Bourgeault et al. 2007).

Referring to the caring dilemma of midwifery, Bourgeault et al. (2007) stated that “At the heart of this dilemma is a tension between altruism and professional autonomy and by extension between the interests of the care provider and her client” (p.390). Indeed, midwives in all sectors had raised personal flexibility as the major issue with continuity of care, on-call obligations, and rotation schedules (Hillan et al. 1997). In their study, Hillan and colleagues identified that constraints, coupled with the lack of managerial support of midwives’ family commitments, led to half of the midwifery workforce in Scotland working part-time (Hillan et al. 1997). Although

midwifery as a profession requires a high level of time and energy, not all midwives are able or willing to commit to such a demanding role (Sandall 1995). In Sandall's (1998) study, 62% of E-grade midwives worked part-time and were less likely to suffer from exhaustion compared to their full-time counterparts. To manage the caring dilemma, Kirkman et al. (2006) suggested that working part-time was a strategy for gaining flexibility in a profession that can be overly demanding.

2.6. Global Pandemic COVID-19

The *Better Births* initiative of 2016 was the catalyst for the new implementation of the continuity of carer model. However, the arrival of the global COVID-19 pandemic during the deployment of the model severely affected its sustainability. COVID-19 amplified inequities in service provision (Jacobsen et al. 2022; Asefa et al. 2022). In New Zealand, where this is the primary model of care, the pandemic management policies were mostly hospital-focused, leaving community settings less supported, thus creating added stress for these midwives (Crowther et al. 2021). In the UK, since the *Changing Childbirth* initiative, some small case-loading teams have managed to be sustained. For these continuity of carer teams, the pandemic management policies led to a general scaling back of homebirths and limited antenatal and postnatal face-to-face contact. This, alongside the increased use of interventions such as induction of labour and caesarean section in response to pandemic risks, heightened stresses and uncertainties for midwives (Rice and Williams 2021). The emergency restrictions impacted essential aspects of midwifery care. Hospitals imposed visitor restrictions, resulting in women giving birth with only one significant other and hospital staff. Antenatal visits were limited to women only, and teleconsultations were prioritised where possible. Rapid and radical changes to care models, in light of exacerbated staff shortages, led many maternity services to limit homebirths and continuity of care models to prioritise essential service needs (Bradfield et al. 2022; Dahlen et al. 2022). The Nursing and Midwifery Council (NMC), under government emergency provisions, introduced a temporary register to allow senior midwifery students to practise.

Workload pressures were magnified as a result of the global pandemic, causing anxiety and stress for all healthcare professionals across all settings (Cole et al. 2020). The ongoing national implementation of the continuity of care model did not improve its chances for success within this context (NHS England 2017). Laake (2020) described the COVID-19 pandemic as 'a physical and mental health epidemic' (p.368), noting that self-care and self-compassion were often set aside in favour of caring duties. Under these conditions, many healthcare professionals found

their usual coping strategies had become ineffective (Cole et al. 2020). A cross-sectional survey of nurses and midwives found that 58% of 2,781 participants in the 18–29 age group had probable clinical depression (Gray et al. 2022). These findings reflect the level of hopelessness as a major factor in depression, where anxiety levels were at a significant and sustained level during this period. There are more than enough studies reporting intentions to leave the profession during and since the COVID-19 pandemic (Haririan et al. 2022). Ahmadi and Maleki (2022) found that 47.7% of their participants wanted to leave due to exhaustion caused by rotational shifts. These workforce challenges are not limited to the UK. Chronic underinvestment in nursing and midwifery, compounded by the COVID-19 pandemic, has contributed to a global workforce crisis, including increased international recruitment efforts to fill widespread shortages (Dragon 2023). These trends suggest that the consequences of pandemic-related pressures on healthcare staff are ongoing and likely to have lasting effects, particularly amongst newly qualified and ECMs.

2.7. With-Midwives

2.7.1. Conflicting Ideologies

With tensions raised regarding new models of care and the changes to working cultures, caring dilemmas, and the emotional impact of managing relationships, Hunter (2004a) argued that midwives' emotion work was dependent on the context of the practice setting. Contexts of practice have greatly changed across the years, and adapting to the rapid cadence of changes has uncovered conflicts between midwives and their organisations. Indeed, prior to recent structural changes, midwives were able to choose their preferred practice areas. Some midwives preferred community settings, while others preferred hospital environments, reflecting differing values and ideologies. Hospital-based midwives were more closely aligned with medicalised care models and were said to internalise institutional values, leading them to prioritise clinical skills over relational aspects of care (Deery 2005). In contrast, community-based midwives typically worked within midwifery-led models that emphasised continuity and relationships with women. When integration models were introduced, conflicting ideologies of being “with-intuition” and “with-woman” began to appear as a source of conflict and emotion work within professional relationships (Hunter 2004a). The differing working cultures and increasing workloads created barriers to authentic emotional engagement, particularly for midwives who struggled to reconcile their beliefs and balance institutional competencies with holistic practice (Deery and Fisher 2010).

Moreover, the ever-widening scope of practice, combined with persistent staff shortages, presented escalating challenges. Midwives were not exempt from the pressures they sought to alleviate in others; they, too, carried personal responsibilities and emotional needs. Balancing altruistic intentions with the demands of personal life, professional risk, and accountability to women and their families created overwhelming pressure for some. This constant juggling act generated residual tension and eroded the resilience of those who remained. For others, the intensification of professional expectations gave rise to emotional conflict, as they navigated competing demands from women, colleagues, the institution, and, ultimately, their own sense of professional identity. Where emotional labour was once a coping strategy, it rapidly became a permanent condition of practice.

After the initial introduction of continuity of care models, the differences between midwife work cultures became quickly apparent. Hospital-based midwives were accustomed to providing fragmented intrapartum care, whereas community midwives typically experienced a degree of continuity in antenatal and postnatal care. Shallow (2001a) found that former hospital midwives were more pragmatic and positive about the new changes, which enabled them to develop better relationships with women than they had been used to. Conversely, community midwives had to adapt to the medically oriented labour ward, which was found to negatively impact their confidence and increase their stress level. Integration of care required these midwives to work across all clinical practice settings. The hospital labour ward became the strongest trigger of anxiety and resulted in an increase in sickness rates after integration was implemented (Shallow 2001b).

Growing concerns regarding sickness and attrition rates in midwifery led to increased research in this area. Ball et al. (2003) investigated why midwives were leaving the profession and identified the rotation system within integrated models of care as a key source of ongoing stress, anxiety, reduced confidence, and lack of control. These factors contributed to job dissatisfaction and ultimately to midwives leaving the profession. Although levels of stress and dissatisfaction varied between groups, Ball et al. (2003) found that a core issue was the conflict between midwifery values and the way practice was organised. This finding aligned with Shallow's (2001a) study, which reported that increased fragmentation and the further integration of medicalised care undermined midwifery-led approaches. Shallow (2001a) argued that the integration model promoted the industrialisation of midwifery to meet organisational efficiency and cost targets, rather than prioritising care for women and their babies.

For midwives, the instability caused by the integration and rotation across the service on a daily or hourly basis was found to increase midwives' lack of confidence and stress levels by decreasing the sense of control over their working environment (Sandall 1998). Research findings began to reveal that midwives were experiencing stress, exhaustion, and burnout (Sandall 1995; Hillan et al. 1997; Sandall 1998; Ball et al. 2003). Midwives who attempted to find support were met with unsympathetic management, which resulted in disenfranchised midwives being left with only two choices: persevere or leave (Ball et al. 2003). Midwives who persevered in an environment with persistent staff shortages led to increased workloads and time management constraints, creating tensions amongst staff. Where integrated or case-loading teams presented opportunities for increased camaraderie, in stretched understaffed conditions, Kirkham (1999; 2007) described a culture of blame and lack of support within and between teams and the hierarchy of maternity services.

2.8. Relationships

Relational difficulties between midwives and their organisations have been an ongoing challenge, with tensions rising over time due to the changes to practice, limited organisational resources, and staff shortages. In addition to these operational and strategic challenges, midwifery is a highly emotive profession and demands continuous direct contact. Kirkham (1999) described midwifery as "...a culture of women which emphasizes, and internalizes, the values of caring and commitment, irrespective of personal sacrifice" (p.734). This degree of commitment alone can be difficult to sustain. Deery and Fisher (2010) contended that midwives carry a degree of emotional tension, which can lead to daily performances where they pretend to cope to navigate their practices to appear functional. They frequently utilise coping strategies considered maladaptive. Deery (2005) referred to them as "pseudo-cohesion" to improve their working lives. This role-playing with colleagues can develop and sustain problematic cultures, potentially explaining why some midwives tend to feel a lack of support from their colleagues.

Deery (2005) argues that midwives internalise institutional values and culture, leading them to value clinically based skills rather than prioritising relationships. Institutional competencies, the risk of negligence and litigation, and the fear of being struck off the midwifery register instigate anxiety in midwives, so worried about doing things right and not making a mistake that they resort to defensive practice to safeguard their careers (Dahlen and Caplice 2014; Alexander and Bogossian 2018). These competing factors and the context in which their work is predominantly

located lead some midwives to prioritise clinical competencies and relevant local social norms over the complexities of relationships (Hunter 2005).

A midwife's relationship with women entails a high degree of empathic identification (Wilson and Thomas 2004). The work of being with women demands a sharing of experiences, which, when positive, can generate high levels of job satisfaction. However, when outcomes are negative, midwives may share in the devastation, leading to significant emotional strain. Creedy et al. (2000) estimated that non-case-loading midwives (who make up the majority of the workforce) care for around 200 women per year and may be exposed to as many as 60 traumatic events annually. This estimate was based on an average of 12 adverse events per year that may or may not meet clinical criteria for Post-Traumatic Stress Disorder (PTSD). PTSD has been reported in up to 33 per cent of childbearing women (Creedy et al. 2000), and research has shown that approximately one in twenty midwives in the UK also experience PTSD symptoms (Sheen et al. 2015). Slade et al. (2018) describe these symptoms as including emotional numbing, hyperarousal, negative self-beliefs, and persistent low mood. Such symptoms can lead to both physical and emotional exhaustion, reducing empathy and impairing midwives' ability to deliver compassionate care (Sheen et al. 2015).

With these challenging terrains, midwives' relationships with women, colleagues, practice, and their profession require expertise in the management of emotions in order to sustain their well-being (Hunter 2010). Their adaptability over time has proven that resilience is a quintessential feature of midwives. However, the sustainability of this characteristic must be given thoughtful consideration. Midwives' work is complex, and although expertise in clinical practice is essential for the safety of women, the management of the emotions related to their profession is just as important.

2.9. Summary

This chapter presented a general overview of developments in the professionalisation of midwifery and moved on to the major government initiatives and policy developments that have instigated research based on the operational and strategic challenges that these major changes have brought in their wake. The changes introduced by the *Changing Childbirth* (DOH 1993) and *Better Births* (NHS England 2016) reports initiated early models of continuity of care in a large hierarchical organisation of the NHS. These schemes introduced new ways of working, and younger midwives appeared to gain job satisfaction where older midwives struggled to adapt to the changes. The research highlighted that personal flexibility and family commitments would

prove too demanding for some and cause exhaustion in others. These changes prompted midwives to find ways of reducing these pressures, which led to an increase in the number choosing to work part-time to balance competing demands of family and work. Moreover, research into dissatisfaction and attrition of midwives highlighted complex emotional challenges that midwives encounter during their professional relationships and practice. The insights from the research will be considered in the following chapter.

Chapter 3. Scoping Review

3.1. Chapter Overview

This chapter presents a scoping review of the literature exploring factors that influence midwives' emotional well-being in the context of workplace adversity. While midwifery research has extensively documented emotional outcomes, there remains limited understanding of the processes and strategies that support sustainable well-being in practice. The aim of the review was to map the existing literature, to identify what contributes to or sustains emotional challenges in midwifery, and what solutions have been proposed to support midwives in navigating professional adversity.

The chapter is structured as follows. The first section outlines the rationale for the review and the scoping methodology employed, including the search strategy, eligibility criteria, and synthesis approach. This is followed by the presentation of findings, which are organised thematically according to key influences on midwives' emotional well-being. The chapter concludes with a summary of the review's implications for midwifery practice and the development of emotional competencies in the workforce. Supplementary tables are provided in Appendix 17.

3.2. Rationale

To identify what strategies would benefit early career midwives (ECMs) to help them develop and maintain their well-being and resilience to workplace adversity, it was important to understand the factors that affect their well-being in practice. After searching the literature (see Chapter 2), it became apparent that there are ongoing themes for which limited resolutions have been identified. The aggregation of factors that create negative affect in midwives is complex, and there has been a lack of evidence-based interventions to improve their well-being. Understanding the factors within midwifery practice that influence these outcomes is essential for identifying and developing strategies to enhance midwives' resilience and emotional well-being.

Due to the complexity of midwifery care, it was necessary to explore how well-being is conceptualised and to examine the range of factors that influence contemporary midwifery

practice. A scoping review was therefore considered the most appropriate approach to map the available evidence and identify gaps in the literature. Although a scoping review is not equivalent to a systematic review, it involves a systematic and iterative process that allows for broad exploration. This review aimed to systematically map the practice-related factors that affect the emotional well-being and resilience of midwives.

3.2.1. Research Question and Objectives

The primary objectives of this scoping review were to:

1. Identify concepts of well-being or distress involved in midwifery care and practice.
2. Determine which factors mediate or moderate emotional well-being and resilience.
3. Identify cognitive and behavioural strategies that may enhance emotional competencies and improve midwives' capacity to manage workplace adversity.

Review Question:

What factors of midwifery care positively or negatively affect midwives' well-being?

3.3. Method

3.3.1. Design

This scoping review followed the Arksey and O'Malley (2005) framework, refined by the Joanna Briggs Institute (JBI) guidelines (Peters et al. 2022), and adhered to the PRISMA-ScR checklist (Tricco et al. 2018). This methodology was selected for its flexibility in addressing broad research questions across diverse study designs.

3.3.2. Eligibility Criteria

Inclusion and exclusion criteria were developed using the JBI's Population–Concept–Context (PCC) framework (see Table A1 in Appendix 17). The population comprised practising midwives across all career stages. Studies that focused primarily on other healthcare professionals or student midwives were excluded. The concept of interest was emotional well-being, including factors such as emotional labour, burnout, resilience, job satisfaction, and psychological distress. Studies addressing clinical outcomes without a link to midwives' well-being were excluded.

The context was limited to healthcare systems comparable to the United Kingdom (UK). Studies from settings with significantly different models, such as the United States (US) nurse-midwife

model, were excluded. Only English-language studies published between 2014 and 2024 were included to reflect contemporary evidence.

3.3.3. Search Strategy

A comprehensive search was developed with a university librarian and reviewed by the supervisory team. Databases included CINAHL, MEDLINE (via EBSCOhost), PubMed, and Scopus. The initial search was conducted in June 2022 and updated in July 2024. Scopus was excluded following an initial review due to yielding no relevant results. The full search strategy for databases is provided in Appendix 17 (Table A2a–A2c).

Search terms were developed using the PCC framework and included keywords and MeSH (Medical Subject Headings) terms such as “midwives”, “job satisfaction”, “burnout”, “resilience”, and “emotional labour”. Boolean operators were used to combine terms within and across PCC categories. A hand search of foundational papers was also conducted. All records were imported into EndNote for de-duplication and screening.

3.3.4. Screening and Selection

Screening followed a two-stage process. In the first stage, titles and abstracts were screened by the primary researcher. A random 25% of records were independently reviewed by a member of the supervisory team to ensure consistency. Discrepancies were resolved through discussion.

In the second stage, full texts of potentially eligible studies were assessed using the same process. Included studies were retained for data extraction. Screening decisions and results were documented using a PRISMA flow diagram (Fig A1 in Appendix 17).

3.3.5. Data Extraction and Synthesis

Data extraction was guided by a standardised charting form developed for this review (see Table A3 in Appendix 17). Key study characteristics were extracted, including author(s), year, country, study design, population, and key findings. Data were initially categorised into 17 thematic areas based on reported factors influencing midwives’ emotional well-being. These thematic areas were subsequently reviewed and synthesised into two overarching domains: (1) systemic, and (2) psychosocial. Each study was then mapped to one or more of the 17 descriptive themes initially identified during data extraction. This framework supported the later synthesis into higher-order domains (see Table A4 in Appendix 17). A coding framework analysis was used to organise the findings across the included studies (see Table A5 in Appendix 17).

The systemic domain encompassed three categories: organisational factors, midwifery care, and clinical practice. These were framed as predominantly non-modifiable structural factors inherent to the professional context. Conversely, remaining initial thematic themes that were considered modifiable at the individual or relational level were grouped under the psychosocial domain. The psychosocial domain consisted of two categories: intrapersonal and interpersonal factors.

For the purposes of analysis and interpretive clarity, all categories were organised into five overarching groups: organisational, midwifery care, clinical practice, intrapersonal, and interpersonal factors. These five categories provided the analytical structure used in the synthesis of results. The distinction between non-modifiable and modifiable factors supported an interpretive framework aligned with the literature on emotion regulation, particularly in relation to emotion regulation abilities and the management of professional relationships.

3.4. Results

A total of 47 papers were included, comprising the following: 9 literature reviews (Hunter 2001; Cramer and Hunter 2019; Pezaro et al. 2016; Leinweber and Row 2010; Pezaro et al. 2017; Dent 2018; Capper et al. 2023; Carvajal et al. 2024; Moran et al. 2023); 38 primary studies, including 21 qualitative studies (Ball et al. 2003; Hunter 2005; Deery and Fisher 2010; Hood et al. 2010; Hughes and Fraser 2011; Dahlen and Caplice 2014; Hunter and Warren 2014; Bedwell et al. 2015; Catling et al. 2017; Crowther et al. 2019; Geraghty et al. 2019; Toohill et al. 2019; Cull et al. 2020; Bloxsome et al. 2020; Hastie and Barclay 2021; Minooee et al. 2021; Sheehy et al. 2021; Doherty and O'Brian 2023; Dent 2024; Donnelly et al. 2024; Tabib et al. 2024); 12 quantitative studies (Sheen et al. 2015; Sheen et al. 2016; Creedy et al. 2017; Hunter et al. 2017; Leinweber et al. 2017; Fenwick et al. 2018; Nightingale et al. 2018; Stoll et al. 2018; Hunter et al. 2019; Amir and Reid 2020; Dent 2020; Cates et al. 2024); and 3 mixed methods studies (Harvie et al. 2019; Catling and Rossiter 2019; Foster et al. 2023). Additionally, 1 discussion paper (Crowther et al. 2016) and 1 commentary (Hunter et al. 2008) were included. This categorisation is outlined in Table A5, Appendix 17.

The primary aim of this scoping review was to map factors affecting midwives' well-being, focusing on both positive and negative influences to identify common factors and themes. The review identified five key categories of factors influencing midwives' well-being: organisational, midwifery care, clinical practice, intrapersonal, and interpersonal. These categories were further grouped into modifiable and non-modifiable factors, providing a structured framework for understanding the challenges and opportunities within midwifery practice. This categorisation

highlights the interrelation between systemic pressures and individual coping strategies, underscoring emotion regulation as a critical but underexplored area for intervention. Notably, only three studies concentrated primarily on positive factors: Bloxsome et al. (2019), which examined the positive aspects of well-being; Crowther et al. (2019), which explored the joys and challenges of midwifery; and Hunter and Warren (2014), which focused on resilience in senior midwives. The remaining 44 studies predominantly reported on negative consequences associated with midwifery practice.

After reading and analysing the 47 papers, each study was categorised according to its primary themes, resulting in an initial 17 broad categories (Figure 3.1). This chart illustrates the relative prominence of different contributing factors, with managing professional relationships and organisational working conditions and support emerging as the most frequently reported. Conversely, emotion work and resilience were the least frequently reported. The articles listed by themes are in Table A7 (Appendix 17).

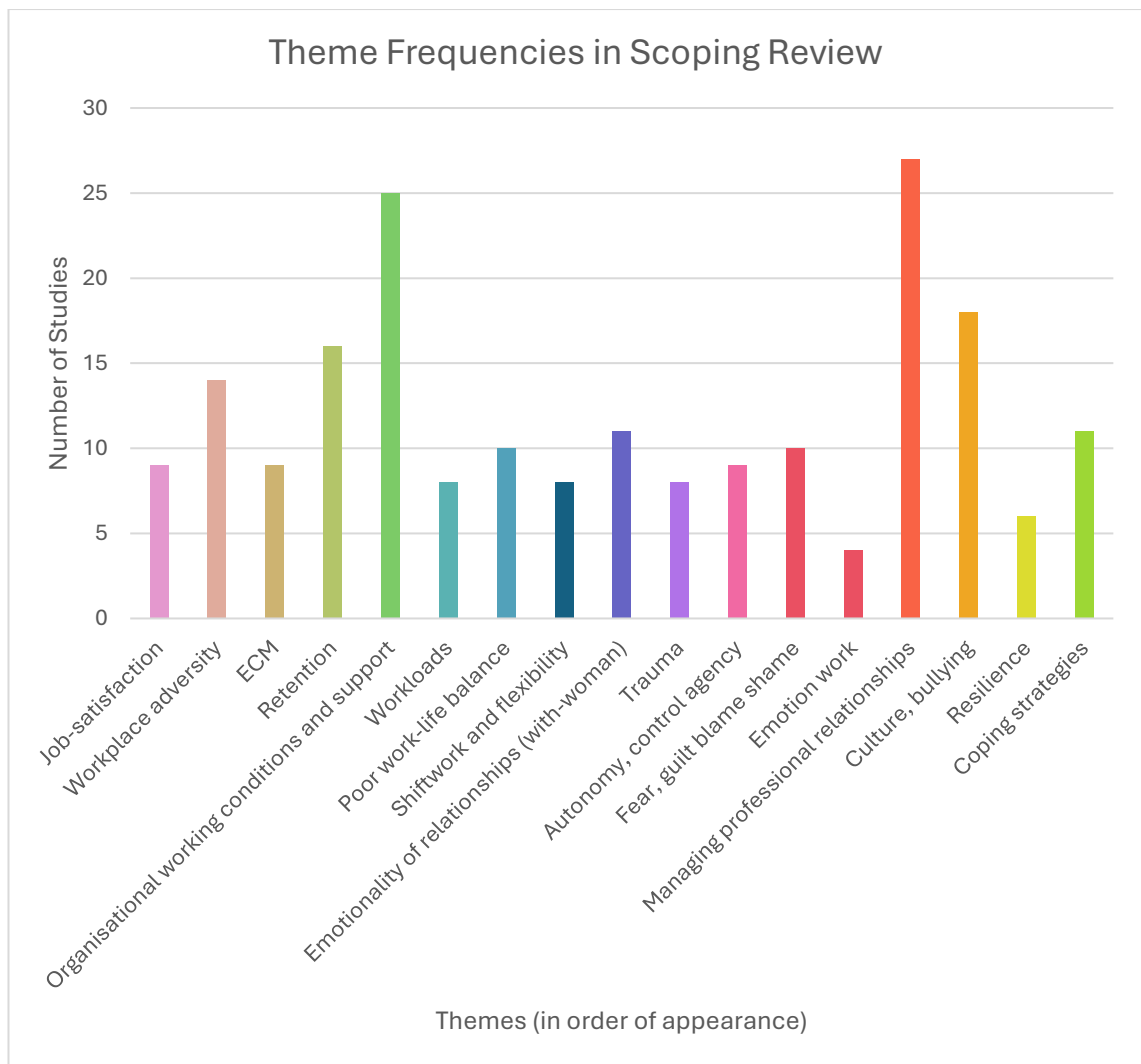


Figure 3.1: Scoping review frequency of themes chart

To consolidate and clarify these findings, these categories were then grouped into five broader categories: Organisational, Midwifery Care, Clinical Practice, Intrapersonal, and Interpersonal factors. For analytical clarity, the first three categories (Organisational, Midwifery Care, and Clinical Practice) were classified as “non-modifiable factors”, as they encompass structural or systemic aspects inherent to the professional environment. Conversely, the remaining categories (Intrapersonal and Interpersonal factors) were labelled “modifiable factors”, reflecting elements that individuals can influence or manage despite structural limitations within the workplace. These two categories fall within the overarching theme of emotion regulation abilities (emotional literacy and management of relationships) (Figure 3.2).

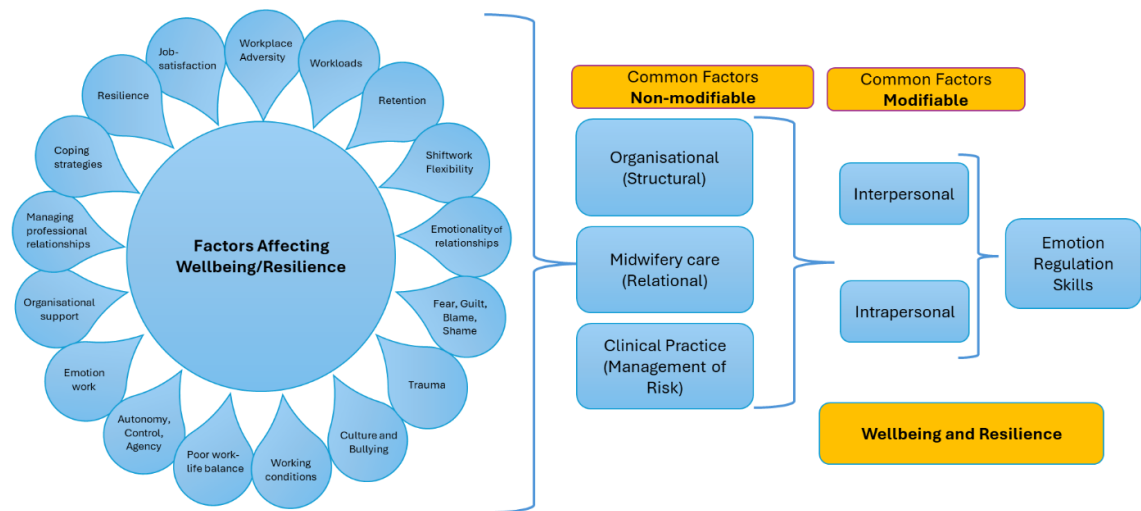


Figure 3.2: Synthesis of findings from scoping review

Next, two overarching themes of Job Dissatisfaction and Workplace Adversity are introduced. These themes are pivotal in understanding midwifery well-being, as they encompass subjective experiences and perceptions that transcend individual categories. Although Job Dissatisfaction is often an outcome of subjective, personal attributions, it reflects a cumulative response to the various unmodifiable factors inherent within the midwifery profession, such as organisational pressures, limited resources, and clinical responsibilities.

Similarly, Workplace Adversity reflects the broader challenges that midwives face, characterised by structural and systemic issues within the profession that are inherently non-modifiable. However, workplace adversity is not confined to a single category. Instead, it is an interconnected theme that influences and is influenced by both non-modifiable and modifiable factors. For instance, while adverse working conditions are driven by structural factors, the ability to cope and adapt to these conditions reflects intrapersonal and interpersonal responses.

3.4.1. Job Satisfaction

Unsatisfactory organisational working conditions are implicated in job dissatisfaction that has been an ongoing concern, particularly highlighted in UK and Australian midwives (Ball et al. 2003; Hunter et al. 2017; Stoll et al. 2018; Catling and Rossiter 2020; Harvie et al. 2019; Cramer and Hunter 2019). Nevertheless, it is also a global phenomenon (Carvajal et al. 2024).

However, in the UK, Cumberlege (2018) found that midwives are less satisfied and more likely to feel work-related stress than other health professionals overall. The ongoing job dissatisfaction

amongst midwifery staff has a direct impact on midwives' sustainability of emotional well-being. This led to research studies that identified aspects of workplace adversity, job dissatisfaction, low morale, psychological distress, and burnout, as the leading causes of attrition in the midwifery workforce (Ball et al. 2003; Hunter and Warren 2014; Pezaro et al. 2016; Creedy et al. 2017; Fenwick et al. 2018; Stoll et al. 2018; Harvie et al. 2019; Cramer and Hunter 2019).

3.4.2. Workplace Adversity

The review highlights workplace adversity as a significant factor negatively affecting midwives. However, it remains unclear whether this adversity is primarily due to poor working conditions, individual perceptions of stress, or a combination of both (Catling et al. 2017; Creedy et al. 2017). What is certain is that some midwives thrive and find satisfaction (Bloxsome et al. 2019; Crowther et al. 2019), while others leave (Ball et al. 2003; Stoll et al. 2018; Harvie et al. 2019).

Luthar and Cicchetti (2000) define adversity as “negative life circumstances that are known to be statistically associated with adjustment difficulties” (p.858). However, perceptions of adversity vary between individuals and are shaped by multiple factors, including personal experiences (Grossmann, 2017), personality traits (Carver and Connor-Smith 2010), social and cultural contexts (Ungar 2011), organisational environments (Fletcher and Sarkar 2013), and cognitive capacities such as emotional intelligence (Mayer and Salovey 1997). The nature of adversity, whether it is a single incident, recurring event or persistent condition, interacts with contextual factors, duration, and perceived controllability to influence both resilience and vulnerability to psychological distress (Carver and Connor-Smith 2010; Bonanno and Burton 2013). Over time, these factors contribute to an individual's evolving perception of adversity, potentially resulting in cumulative stress. Ultimately, it is the subjective appraisal of adversity that determines emotional response, and this appraisal plays a key role in the emergence of emotional dysregulation, with substantial variability across individuals (Lazarus and Folkman 1984; Bonanno 2005).

In healthcare, and particularly in midwifery, these individual differences highlight the importance of considering the diverse ways professionals experience adversity. Remedial efforts through organisational changes may help reduce workplace adversity, but are unlikely to suffice without also addressing individuals' cognitive coping strategies to enhance resilience (McDonald et al. 2016; Pezaro et al. 2017; Hunter et al. 2019; Polizzi and Lynn 2021; Doherty and O'Brien 2023; Carvajal et al. 2024; Tabib et al. 2024).

Jackson et al. (2007) define workplace adversity as “a stressful, traumatic, or difficult situation or episode of hardship encountered in the occupational setting” (p.3). Healthcare research

consistently highlights organisational, professional, and ideological challenges as central sources of adversity (Cameron 2011; Jackson et al. 2007; RCM 2018). Although organisational constraints, staff shortages, and high workloads are common across multidisciplinary teams and contribute to unsafe working conditions (Hunter et al. 2017), each profession is affected in distinct ways. Nurses, for instance, may experience moral and ethical distress when they are required to implement decisions made by others, even when these conflict with their responsibility to advocate for patients (Jameton 1993; Morley and Sankary 2023).

Midwives, similarly, experience hierarchical working relationships, staff shortages, and high workloads, leading to burnout and a negative affective response to their work (Creedy et al. 2017). However, midwifery also presents additional complexities. The profession's emphasis on autonomy and accountability means midwives are solely responsible for their clinical decisions and actions, particularly in advocating for women's choices (Zolkefli et al. 2020; Sonmezer 2021). This responsibility, coupled with the need to manage organisational risk while balancing women's preferences, can weigh heavily on midwives (MacKenzie Bryers and van Teijlingen 2010; Scamell 2016). Adverse events in the perinatal period pose additional risks of emotional distress and fear of clinical practice (Leinweber et al. 2017; Nightingale et al. 2018; Minooee et al. 2021). While confidence can serve as a protective factor in clinical practice, a lack of confidence may increase the likelihood of ECMs experiencing workplace adversity, an area that remains under-researched (Bedwell et al. 2015; Toohill et al. 2019).

3.5. Non-Modifiable Factors

The non-modifiable factors influencing midwifery encompass structural and systemic challenges embedded within organisational and clinical practice contexts. These organisational factors and working conditions have resulted in some midwives' job dissatisfaction, contributing to what is perceived as workplace adversity. These factors include staffing levels, shift work, poor work-life balance, as well as the intrinsic demands of midwifery care, including the emotional toll and risk of adverse clinical events. Together, these create an emotionally challenging environment that impacts midwives' resilience and well-being. The consensus amongst researchers has recommended that organisations should improve staffing levels, reduce workloads, and create supportive working environments and working patterns tailored to individual needs (Ball et al. 2003; Shen et al. 2004; Payne 2010; Hunter et al. 2017; Cramer and Hunter 2019).

3.5.1. Organisational Factors: Working Conditions

The review highlights critical organisational factors that contribute significantly to workplace adversity and job dissatisfaction amongst midwives. Chief amongst these is challenging working conditions marked by frequent staff shortages, inflexible shift patterns, heavy workload, and limited managerial support. Studies consistently report that these factors not only hinder job satisfaction but also lead to high turnover rates, which in turn exacerbates staffing issues and increases pressure on remaining staff (Ball et al. 2003; Hunter et al. 2017; Hunter and Cramer 2019). Consequently, organisational efforts to improve retention, enhance staffing levels, and provide tailored support are repeatedly recommended as a means of alleviating these structural pressures.

3.5.1.1. Workloads

The UK WHELM study identified that ECMs reported increased workloads due to staff shortages, leaving them overwhelmed and fearful of making mistakes under pressure (Hunter et al. 2017; Cull et al. 2020). For more experienced midwives, workloads had been steadily increasing over the years, exacerbated by service changes that often also increased workloads.

Staffing shortages have been identified as a major factor linked to job dissatisfaction (Ball et al. 2003; RCM 2016a). However, these shortages are not solely due to high attrition rates. Curtis et al. (2006a) highlighted concerns expressed by midwifery managers that funding for baseline staffing levels in maternity services was inadequate to meet the demands of woman-centred care targets. Therefore, even if maternity services were fully staffed, there would continue to be capacity issues in sustaining the continuity of carer.

The now endemic shortages represent a vicious cycle for organisations that leads to unsatisfactory working conditions. Pressurised services negatively impact working conditions and contribute to retention challenges in the profession. The international literature identifies that challenging working conditions include pay, shift patterns (rotations, on-calls, lack of breaks), lack of managerial support, workloads, staffing levels, models of care, lack of time to care, and extensive record-keeping. Without organisational improvements to address systemic persistent weaknesses, midwives' individual vulnerabilities are likely to persist.

3.5.1.2. Poor work-life balance

Chronic staff shortages have exacerbated service pressures, contributing to poor work-life balance, a primary cause of job dissatisfaction at all career stages (Fereday and Oster 2010; Hunter et al. 2019; Hasson et al. 2023). Much research highlights the challenges midwives face

in balancing the demands of their role with job and family commitments (Ball et al. 2003; Versaavel 2011; Sandall et al. 2016; Fenwick et al. 2018; Cramer and Hunter 2019), alongside meeting the ongoing needs of maternity services. Continuous care is an inherent aspect of midwifery. Midwives must negotiate this alongside meeting their personal needs, while organisations are tasked with balancing service priorities and employee well-being. This balance can be especially complex in a workforce predominantly composed of women who often face unique caregiving responsibilities (Bourgeault et al. 2007).

The literature offers some anecdotal evidence of differing priorities amongst midwives at various career and life stages. For instance, newly qualified midwives (NQMs) tend to prioritise clinical skill development, whereas experienced midwives often seek role recognition or balance family responsibilities. Meanwhile, older midwives may be navigating health and menopausal concerns. Each group strives to meet its individual needs, yet staffing shortages add pressure to services. This sometimes disadvantages those seeking more flexible work arrangements, creating tension between colleagues and service managers (Hunter et al. 2017). Scholars suggest that no single organisational solution can meet the diverse needs of every midwife, given the complexity of personal and professional priorities across career stages (Cull et al. 2020). As such, effective organisational strategies should aim to provide flexible support frameworks that acknowledge and respond to the evolving personal and professional needs of midwives throughout their careers.

3.5.1.3. Shift-work and flexibility

The continuous care model central to midwifery inherently brings inflexible job demands, particularly in terms of shift work and balancing personal commitments. Ball et al. (2003) found midwives left the profession due to the lack of flexibility and family-unfriendly shift patterns.

Historically, as Kirkham (1996) noted, midwives were expected to work full-time, reflecting the traditional profile of a professional midwife. Part-time employment was considered unsuitable for the profession. Dent (2020) further highlighted that a culture of self-sacrifice, characterised by unpaid overtime and skipped rest breaks, has contributed to the unsustainability of midwifery well-being. However, evolving workforce needs and high attrition rates have led maternity managers to introduce part-time contracts as a strategy for recruitment and retention (Sandall 1995; Kirkham 2007). Additionally, the COVID-19 pandemic highlighted the importance of flexible working arrangements for managing health, well-being, and staff retention (RCM 2021; Shifrin and Michel 2022).

Over the years, midwives have increasingly chosen part-time work as a means of gaining flexibility in a demanding profession (Hillan et al. 1997; Prowse and Prowse 2015). Unsurprisingly, the Office for National Statistics (ONS 2019) found that 93% of nurses and midwives utilise part-time contracts or bank contracts as strategies to manage work-life balance and meet the needs of their personal and family priorities. However, these strategies have not been without impact on full-time midwives, who have in turn considered their own work-life balance disadvantaged as a result (Curtis et al. 2006b). Prowse and Prowse (2015) argued that flexible working arrangements and the increase in part-time contracts exacerbated workloads and staff shortages, leading to increased sickness rates that left full-time midwives to cover vacant shifts. The increase in workload created resentment amongst full-time midwives who considered that self-sacrifice was what constituted being a true midwife. Indeed, “managers and full-time midwives argued the expectation of a midwife was to be committed to the profession that put the needs of women and service first” (Prowse and Prowse 2015, p.769).

More recently, organisations introduced longer 12-hour shifts, enabling full-time hours to be completed in just three instead of five weekly shifts. The advantages of compressing shifts freed remaining hours for personal and family life (Dent 2020). For service providers, longer shifts reduce costs, handovers, and overlap constraints. For women, longer shifts increase continuity of carer during perinatal processes (Fenwick et al. 2018; Dent 2020). However, Dent (2024) raised concerns over risks to health and safety, including the diversity of needs across the midwifery population. The organisation’s choice of long shift pattern to increase flexibility may have caused collateral problems when considering the vulnerabilities of some and the ageing population of midwives (Dent 2018; 2020; 2024).

The absence of policies to regulate the cadence of long shifts and the cumulative effect of fatigue and cognitive dysfunction from prolonged shifts can lead to stress, burnout, and an increased risk of clinical errors, posing public safety concerns. Additionally, Dent (2020) also argued that staffing levels and a lack of transparency from managers regarding data about overtime and rest breaks raised concerns about their ability to manage risks to health and safety. Although research in this area remains limited, studies in nursing and ambulance services have associated longer shifts with increasing fatigue (An et al. 2022), lowering cognitive function (Kuhn 2001), and risking safety of care (Rogers et al. 2004). For the wider public, 12-hour shifts have been associated with an increased risk of road traffic accidents (Saadat et al. 2017).

Despite these concerns, many managers report that midwives are reluctant to return to shorter shifts (Dent 2020). This preference reflects the diverse needs of the midwifery workforce, with

younger midwives and ECMs often favouring the flexibility of longer shifts, while older midwives generally prefer shorter ones (Dent 2020). The issue is particularly challenging for perimenopausal midwives, who may struggle with the physical demands of extended shifts (Hazard 2023). This diversity in needs complicates efforts to implement flexible measures that accommodate both individual preferences and the inherent unpredictability of perinatal care.

3.5.1.4. Retention

Retention remains an enduring challenge within the midwifery profession. The RCM (2010) report identified that midwives who left the profession had an average of eight years of practice before leaving, and ECMs were at risk of leaving the profession in the first five years of their registration (Hunter et al. 2019; Harvie et al. 2019; Cull et al. 2020). A Canadian study found that 21% of ECMs leave after six years of registration (Cameron 2011). Similar findings were identified in nursing. Rudman et al. (2014) conducted a longitudinal study that investigated new graduate nurses' intentions of leaving their profession. They found a 20% cross-sectional prevalence of intentions to leave within the first five years (Rudman et al. 2014). Other studies of newly qualified nurses have found variations between 10–54% within the first three years of practice (Flinkman et al. 2010). The RCM (2010) also identified first-year attrition rates of 5–10% among NQMs. More recently, an Australian study by Sheehy et al. (2019) found that 21% of ECMs had left the profession, and 39% had considered leaving.

Research studies investigating intentions to leave the nursing and midwifery profession have found that vulnerability to workplace adversity mediates these intentions (Cline et al. 2003). Vulnerability is an integral part of being human and is relative to individual differences based on environmental and/or internal factors and experiences. It manifests in certain contexts, including environmental, social, psychological, and physical factors that are influenced by the perception of self, appraisal of risk, and coping abilities (East et al. 2020). The professional vulnerability of midwives can be considered based on their positional status within the healthcare professionals' hierarchy (medical), which contrasts with the autonomous and ideological concepts of midwifery (Heron 2009). The power dynamics within these working relationships can lead to imbalances that result in the perception of marginalisation. While the midwifery literature acknowledges workplace adversity and intentions to leave the profession, it offers limited insight into individual differences as determinants of vulnerability. There is also a lack of evidence on the associated emotional experiences within relationships and the self.

Studies on ECMs in the 1980s suggested that personality, idealism, and the work environment were the driving forces behind a high turnover rate (Mander 1987; Robinson 1986). More recent

research has found that ECMs continue to leave the profession within the first five years of their registration (Hunter et al. 2019; Harvie et al. 2019; Cull et al. 2020). Turnover rates across all career stages and resulting chronic staff shortages have troubled the midwifery profession over time. These ongoing problems have been well considered in the literature, but attempts to curtail these essential challenges through organisational support such as preceptorships, Professional Midwifery Advocates (PMA), and resilience workshops have not remedied retention.

In response to the ongoing cycle of training new registrants only to see them leave, NHS England developed the role of a specialist retention midwife to support those most at risk of exiting the profession within their first five years (Cull et al. 2020). This initiative sought to promote the resilience of newly qualified midwives by providing personalised clinical and career support (Bentley and Smith 2022). While the programme recognises the limitations of universal approaches to complex retention issues, it aims to accommodate individual differences amongst preceptorship midwives. However, whether such support effectively fosters resilience in individual midwives remains uncertain at this stage (Crowther et al. 2016).

3.5.2. Autonomy, Control, and Agency

As discussed, the predictability of clinical midwifery practice can be impeded by organisational constraints and the demands of service needs. Combined with the unpredictable nature of childbirth, practising midwifery is therefore considered a demanding profession. Norlund et al. (2010) argued that women who work in emotionally demanding professions with little agency over their working conditions are at higher risk of burnout. This implies that agency, or a lack thereof, can negatively impact the quality of life and emotional well-being of individuals as employees. Conversely, midwives are often viewed as autonomous practitioners in their professional roles, which renders them responsible and accountable for their practice (Heron 2009; Vermeulen et al. 2023).

Difficult working conditions combined with restrictive policies, guidelines, and the professional obligation to advocate for childbearing women and their families can challenge the concept of autonomy. Instead, as Pollard (2003) suggested, “midwives have to assume autonomy” (p.120). However, the concept of professional autonomy remains contested in the literature and is often regarded as aspirational, as it is closely tied to personal and clinical confidence. This is commonly referred to as attitudinal autonomy (Batey and Lewis 1982). Furthermore, professional autonomy within organisations is more complex given the political positionality of the profession within a medicalised environment and hierarchical system of midwifery practice (Heron 2009; Bedwell et al. 2015; Geraghty et al. 2019; Davis and O’Connell 2023). However, both personal

and professional autonomy encompass dimensions of control and agency (Zolkefli et al. 2020). Being subject to limitations as an employee may compound emotional dissatisfaction and burnout.

The positionality of the midwifery profession within the wider, medicalised health system has been widely debated in the literature, particularly in relation to midwives' job dissatisfaction. Ideological tensions between obstetrics and midwifery remain a significant source of conflict in current practice. Stevens (2020) described this as the basis for "cross-cultural misunderstandings" (p.109), a view consistent with Hunter's (2004) concept of conflicting ideologies. Drawing on Frankenberg's (1988) analysis, Stevens (2020) argued that time is a dominant factor in the struggle for professional authority, particularly through the medical management of time in disease control. In this context, Stevens introduced the notion of "physiological time" in midwifery practice (p.108), referring to the natural unfolding of pregnancy and birth in contrast to the task-oriented and risk-driven models of care that dominate the maternity system. This emphasis on managing risk and economic efficiency through time control often undermines midwives' ability to practise in ways that centre on being with-woman and respecting the physiological time of the unborn child. Within this context, it is unsurprising that the concept of autonomous midwifery practice remains heavily contested in the literature, often positioned between professional accountability and the risk-choice paradox (Symon 2006).

A key constraint to midwives' agency and control lies not only in external systems but also within the profession itself. This includes embedded cultural norms, interpersonal dynamics, and professional hierarchies that shape practice environments (Catling and Rossiter 2020). The literature on well-being and retention identifies poor management and leadership as a source of adversity for midwives (Ball et al. 2003; Hunter et al. 2019). Referred to by some as an implicit "us and them" divide, Edmondson and Lei (2014) argued that it was a symptom found in larger organisational hierarchy dynamics where resources are limited (Edmondson and Lei 2014; Catling and Rossiter 2020). Lack of support and advocacy for their personal and professional needs (resources, autonomy, and professional recognition) has been found to influence decisions of retention and attrition (Hildingsson et al. 2016). Davis and O'Connell (2023) suggested that midwifery leadership may not be appropriately representing the profession's interests over those of nursing. This concern echoes earlier critiques by Halligan (2010). The efforts to reduce health and safety risks have created a managed healthcare climate and professional acquiescence to "managerialisation" and medicalised care (O'Connell and Downe 2009).

3.5.3. Autonomy and Accountability in Context

Conversely, midwifery leaders have responded to empirical research on NQM retention by developing and enhancing preceptorship programmes (Hobbs 2012; Black 2018). However, sustained support for ECMs beyond the initial preceptorship year appears to have received less attention (Cull et al. 2020), leaving some to internalise a prevailing sentiment of blame. The so-called “blame culture” in health services is bidirectional, and midwives themselves have frequently been targeted, as documented in the literature (Hunter et al. 2017; Catling and Rossiter 2020). Investigations into serious maternity care failures, such as those at East Kent, Shrewsbury and Telford, and Morecambe Bay NHS Trusts, have intensified scrutiny of practice through audits, incident reviews, debriefings, and risk-management policies aimed at reducing liability and litigation. Within this context, accountability for perceived sub-standard care is often met with unsupportive responses from colleagues or the wider health system, which can have long-lasting effects on midwives’ professional identity and emotional well-being. Autonomy, agency, and control, when exercised within the constraints of institutional accountability, require clinical confidence but may result in blame attribution when expectations are not met by oneself or others.

3.5.4. Midwifery Care

Beyond organisational issues, the intrinsic demands of midwifery care impose additional emotional and psychological pressures on practitioners. The “cost of caring” reflects the unique emotional labour involved in “with-woman” care, where midwives provide not only clinical care but also emotional support throughout the perinatal period (Doherty and O’Brien 2023; Sinatti et al. 2025). This emotional investment is often compounded by the unpredictable nature of clinical practice, where adverse events can have lasting psychological effects on midwives (Hunter et al. 2008). The persistent lack of time to manage complex clinical and emotional demands further impacts midwives’ resilience and well-being, highlighting the importance of systemic improvements in workload management and support.

The relational core of midwifery care is integral and unchanging, requiring continuous emotional and clinical support through close and intense relationships with childbearing women and their families (Hunter 2001). This deep engagement is essential for fostering trust and supporting positive birth experiences, yet it also places midwives at a heightened risk of emotional and professional adversity (Hunter 2001). The nature of clinical care in midwifery includes managing unpredictable adverse events and outcomes. Such conditions expose midwives to significant emotional strain, as they navigate the dual demands of providing compassionate care and coping

with the potential emotional toll of these events. This inherent vulnerability highlights the necessity of effective strategies that support midwives' emotional resilience in their relationally intense roles (Hunter et al. 2008).

3.5.5. Clinical Practice

In addition to the management of clinical risks, the emotionally demanding work involved can increase midwives' vulnerability to workplace adversity (Foster et al. 2023). Although nurses and medical staff are also affected by the cost of caring, the prolonged intensity (Morris and Feldman 1997) of close relationships further impacts the well-being of midwives (Hunter 2001; Cramer and Hunter 2019; Hunter et al. 2019). This additional layer of emotional complexity involved in interpersonal relationships during the most emotive experiences of women's lives constitutes both high levels of satisfaction (Bloxsome et al. 2018), but also high levels of distress in the case of adverse events (Hunter 2001; Rayment-Jones et al. 2015; Foster et al. 2023).

Indeed, emotions are a vital aspect of midwifery care and midwives are susceptible to engaging in empathic identification with women's experiences (Leinweber and Rowe 2010; Sheen et al. 2015). Stout (2019) described empathy as "openness to the emotional perspective of another" (p.347). For the compassionate midwife, being "with-woman" is a great source of satisfaction (Kirkham 2007; Bloxsome et al. 2019). However, engaging in close relationships during intrapartum care exposes midwives to the risk of developing secondary traumatic stress, Post-Traumatic Stress Disorder (PTSD), anxiety, and depression (Leinweber and Rowe 2010; Sheen et al. 2015; Wright et al. 2018; Minooee et al. 2020; Foster et al. 2023). The accumulations of these intense experiences can lead to emotional exhaustion and compassion fatigue that, combined with organisational constraints, compound workplace adversity.

It is unsurprising that individuals with diverse life experiences, including varying degrees of personal adversity, are drawn to or remain in the midwifery profession, despite their own past trauma (Toohill et al. 2019). Midwives come from a wide range of backgrounds and age groups. For some, these experiences appear to foster a strong commitment to caring values. This phenomenon, described by Staub and Vollhardt (2008) as "altruism born of suffering" (p.267), reflects a tendency for individuals who have endured hardship to engage in professions that allow them to care for and support others. Altruistic care can serve as a coping mechanism, providing a sense of self-efficacy, competence, and purpose, and can even offer a constructive distraction from personal difficulties (Midlarsky 1991; Vollhardt and Staub 2011). Although midwifery's working conditions may often be perceived as adverse, the "with-woman" relationship provides midwives with moments of meaning and connection that reinforce their

commitment to the profession (Crowther et al. 2019; Bloxsome et al. 2019). Conversely, those who lack sufficient coping strategies or resilience may find the demands overwhelming, leading some to ultimately leave the field (Hunter et al. 2017; Cull et al. 2020).

3.5.5.1. Cost of caring

Midwives place a high value on relationships, as this connectivity enables them to recognise and respond to women's needs through the development of confidence in trust-based relationships (Bedwell et al. 2015). However, the structures and patterns in which they work, particularly shiftwork and rota-based rotational patterns, inevitably fragment the continuity of these relationships (Crowther et al. 2016; Capper et al. 2023). This fragmentation makes it difficult to build and sustain trust and confidence, both for the midwives and for the women in their care (Bedwell et al. 2015). Consequently, women often find themselves having to build relationships with several midwives, which can impact the quality and consistency of care.

Understanding the daily operational difficulties of midwives in managing their professional and personal lives has been shown to have a direct impact on their levels of well-being (Crowther et al. 2016). Deery and Hunter (2010) identified that one of the most satisfying aspects of midwifery work is the building of relationships with women. However, engaging in woman-centred care demands a considerable level of effort and has a significant emotional impact on midwives. "Professionals who listen to clients' stories of fear, pain and suffering may feel similar fear, pain, and suffering because they care. There is a cost to caring" (Figley 1995, p.1). Within the context of the inter-subjectivity of working relationships, the skill of caring for others requires compassion and empathy, as well as the management of the array of emotions elicited in these exchanges.

According to Figley (1995), empathy is an essential component in professional relationships and a key skill for caring professionals. Empathy encompasses the capacity to experience the emotional experiences of others (Gallese 2006). However, Baron-Cohen (2003) identified two major elements of empathy: (1) a cognitive, and (2) an affective component. Cognitive empathy is what Piaget referred to as decentring, which means responding in a non-egocentric manner (Baron-Cohen 2003). Affective empathy is seen as connecting emotionally with others. However, the balancing of cognitive and affective empathy is dependent on the individual's skill to utilise both components effectively. The effective application of these skills is also dependent on the context, environment, and culture in which empathy is facilitated or impacted.

Health professionals who are involved in caring during acute health and emotional events risk impacting their own mental health and their capacity to maintain levels of empathy in

relationships (Leinweber and Rowe 2010; Cates et al. 2024). Deery and Fisher (2010) reported that high workloads are a barrier to authentic emotional engagement in midwives, who find the balancing of institutional competencies and holistic practice challenging. Attempting to balance altruistic intentions with the reality of personal lives and the relationships they engage in, while also managing the risks of their profession and the risk to women and their families, creates an emotional minefield. The residual tension that is created in this permanent juggling act impacts their levels of emotional resilience. Consequently, they may resort to performing their profession instead of living it, which leads to emotional conflict between women, colleagues, institution and, ultimately, the profession (for those who decide to leave it).

The inability to cope with job stress and the accumulation of psychological strain over time can lead to burnout syndrome (Maslach 1982). According to Schaufeli et al. (2009a), burnout is characterised by emotional exhaustion leading to a lack of motivation or enthusiasm in the workplace, which, in turn, leads to depersonalisation and an inability to effectively communicate and engage in workplace relationships. Sprang et al. (2007) argued that burnout could act as a coping mechanism, protecting the health professional from further emotional injuries. However, in the context of midwifery, burnout adversely affects the quality of relationships with women and has been identified as a key factor influencing professional satisfaction. It also challenges the ideological foundation of midwives' commitment to being with-women.

Nevertheless, burnout in midwifery is a significant concern that has developed internationally and has been identified across all models of care and career stages (Wallbank 2010; Mollart et al. 2013; Yoshida and Sandall 2013; Sheen et al. 2015; Fenwick et al. 2018; Stoll et al. 2018; Hunter et al. 2017; Amir and Reed 2020). Fenwick et al. (2018) found high levels of personal and work-based burnout in midwives. Their research indicated that ECMs were at particular risk of workplace burnout, which they suggested was primarily based on the ideological versus contextual reality of working in a hierarchical, medically oriented setting (Geraghty et al. 2019). Although case-loading had overall the lowest levels of burnout, client-related burnout was higher in ECMs (Fenwick et al. 2018).

3.6. Modifiable Factors

Midwives encounter a range of professional challenges, some of which stem from those elements of their experience that can be influenced by personal actions, skills, or environmental adjustments (Cramer and Hunter 2019). Midwifery practice involves both intrapersonal and interpersonal challenges, often interrelated and connected in ways that shape emotional well-

being, professional sustainability, and workplace culture. These fundamental components are susceptible to being a positive influence on intra and interpersonal relations, group cohesion, and self-confidence (Koole 2009). The literature reveals that, while some difficulties arise from internal emotional responses and cognitive appraisal of workplace stressors (intrapersonal factors), others are rooted in relational dynamics and systemic structures that influence midwives' experiences (interpersonal factors). However, many challenges exist at the intersection of both domains, where individual responses are shaped by relational experiences, requiring emotion regulation to navigate these complexities effectively.

3.6.1. Intrapersonal Factors

Intrapersonal factors generally refer to an individual's inner perceptions or characteristics. Although the construction of meaning operates at both personal and interpersonal levels, it is influenced by personal values and beliefs, attitudes, decisions, self-concept, self-esteem, and self-regulation abilities. These perceptions can significantly affect the representation of environment, relationships, and contextual factors. Intrapersonal factors, like self-efficacy, have an impact on personal and professional goals (Lent et al. 1994). Coping-efficacy is the ability to cope with stressful events and their emotional consequences (Folkman 1984).

3.6.1.1. Fear, guilt, blame

In midwifery, fear is an inherent and often visceral by-product of clinical practice, arising from the uncertainty of outcomes, which may lead to guilt or blame (Sheen et al. 2016; Scamell 2016; van den Heuvel et al. 2023). The fear of causing harm, coupled with potential emotional and legal consequences, significantly heightens workplace stress and impacts midwives' emotional well-being at all career stages (Hunter 2004a; Leinweber and Row 2010; Hood et al. 2010; Dahlen and Caplice 2014; Toohill et al. 2019; Minooee et al. 2021). However, direct discussions of fear in the midwifery literature are limited, with research more often focusing on risk, adverse events, and litigation rather than fear itself (Dahlen and Caplice 2014; van den Heuvel et al. 2023). Whether this fear stems from the medicalisation of birth, resource-constrained environments, or a lack of confidence in clinical skills, the anticipation of fear, accompanied by negative intrusive thoughts, has a deleterious effect on individual midwives.

The global rise in litigation and the increased emphasis on clinical governance have further affected midwives' emotional well-being (Toohill et al. 2019). As medical interventions and the complexity of pregnancies increase, midwives are expected to balance risk management with support for normality within a risk-averse environment (Geraghty et al. 2019; Minooee et al. 2021). This focus on control over listening to women fosters tension and anxiety within clinical

settings (Kirkham et al. 2002). Rather than merely creating a culture of blame, this environment promotes risk aversion driven by fear, which manifests in negative responses such as hypervigilance, defensive practice, and extensive record-keeping to meet clinical governance requirements (Hood et al. 2010; Sheen et al. 2016; van den Heuvel et al. 2023).

For expectant parents, the perinatal period is a highly emotional time, and when outcomes do not meet parents' expectations, midwives and other professionals often find themselves navigating a challenging emotional landscape, one marked by feelings of guilt, blame, and accountability. This added burden contributes to the ongoing emotional toll on midwives, highlighting the need for effective coping strategies and supportive frameworks within the profession (Nightingale et al. 2018).

For NQMs and ECMs, initial adaptation often involves a process of acquiescence and assimilation into established practices and culture (Cull et al. 2020; Donnelly et al. 2024). This inculturation requires new midwives to demonstrate commitment and competence, sometimes driven by a fear of ostracism. However, the fear of making mistakes or overlooking important details creates a tension between the responsibility and accountability inherent in their roles (Fenwick et al. 2012; Cull et al. 2020). The literature reflects this struggle, describing new midwives as overwhelmed, out of depth, and merely surviving, with metaphors that involve swimming, sinking, swamps, and life-rafts (Hughes and Fraser 2011; Pezaro et al. 2016; Cull et al. 2020; Sheehy et al. 2021). The fear of displaying weakness can lead to concerns about judgement from colleagues, with potential clinical liability as an underlying worry (Shallow 2001a; Donnelly et al. 2024). A common coping strategy for new midwives is to conceal their fears and defer to others to gain acceptance, often at the expense of their personal beliefs (Donnelly et al. 2024). In contrast, support and camaraderie are reported as valuable remedies for managing fear and insecurity (Oates et al. 2019; Cull et al. 2020). However, by conforming to cultural norms of hiding emotions, midwives may inadvertently perpetuate dysfunctional work cultures, creating barriers to sustainable and healthy coping strategies.

The emotion of fear also significantly affects relationships between midwives and their colleagues, leading to defensive behaviours for self-protection (Hood et al. 2010). This dynamic can foster mutual doubt and suspicion, resulting in an unfriendly and unsupportive work environment. Fear often contributes to a culture of blame, serving as a defensive mechanism (Hood et al. 2010; Mayra et al. 2023). For instance, some midwives may project blame onto others, including clients, as a form of self-preservation, leading to judgements based on women's choices or decisions (Kirkham et al. 2002; Hood et al. 2010; Toohill et al. 2019). Adverse events

can amplify this fear, resulting in decreased confidence in clinical practice and advocacy for normality, thereby reinforcing risk-averse practices in maternity care (Hood et al. 2010; Toohill et al. 2019). In their study, Dahlen and Caplice (2014) identified the top fears amongst midwives, with the second most common being “missing something that causes harm” and the fifth “being watched and criticised” (p.267). Notably, student midwives expressed a specific fear of being blamed by colleagues during home births (Dahlen and Caplice 2014). Although Hunter (2005) suggested that midwifery colleagues are vital for fostering self-esteem, trust in colleagues is often reserved, with support-seeking behaviour directed only toward trusted individuals (Hunter and Warren 2013). Dahlen and Caplice (2014) also observed a lack of confidence in expressing fears amongst colleagues, with few discussing these concerns openly.

In a culture of fear and blame, trust amongst healthcare professionals, as well as between them and the wider public, is strained. Professional and clinical insecurities can lead to suspicion and increased blame, further reinforcing defensive practices and a fear of uncertain outcomes (van den Heuvel et al. 2023). To manage these pressures, some midwives may adopt task-oriented care and emotional detachment as coping mechanisms, which, if unaddressed, can become maladaptive, potentially resulting in depersonalisation and diminished compassion (Deery 2003; Mayra et al. 2023). Such coping mechanisms may create an appearance of unkindness and detachment, which can alienate both women and colleagues, leading to negative judgements and blame. Hunter (2005) emphasises that midwifery colleagues are crucial sources of support and occupational self-esteem. Without this support, the emotional labour of the profession intensifies, compounding the challenges of a culture rooted in fear.

3.6.1.2. Trauma

The work of being with-woman involves the development of empathic relationships that are characterised by the support for women’s emotional, physical, and psychological needs. For midwives, these professional relationships are based on trust, empowerment, advocacy, sensitivity, flexibility, inclusivity, and care. Although these relationships are not regarded as friendship, they involve a sense of connectedness and reciprocity, which can lead to high levels of job satisfaction when positive (Versaevel 2011; Bloxsome et al. 2019; Crowther et al. 2019). However, when experiences result in negative outcomes, these empathic connections can also lead to shared distress and, at times, the development of traumatic symptoms in some midwives (Leinweber and Rowe 2010; Sheen et al. 2016; Leinweber et al. 2017; Nightingale et al. 2018; Toohill et al. 2019; Minooee et al. 2020; Amir and Reed 2020; Minooee et al. 2021).

Caring for others' emotional and physical well-being inherently affects the caregiver's emotional health, particularly in contexts involving suffering. This dynamic is often described as the 'cost of caring', where exposure to others' fear, pain, and suffering can evoke similar emotional responses in those providing care (Figley 1995). In healthcare settings, professionals working closely with patients during acute health crises and emotionally intense events are especially vulnerable to mental health challenges. Such experiences can erode their ability to maintain empathy in relationships, posing risks to their well-being and the quality of care they provide (Hochschild 2006).

Exposure to perinatal adverse events that carry the potential to induce traumatic responses is an inherent risk in midwives' clinical practice. As briefly noted in Chapter 2, Section 2.8, such events represent a recognised occupational hazard, with the potential to cause trauma responses and long-term emotional strain (Creedy et al. 2000; Sheen et al. 2015). Within this scoping review, additional evidence emerged reinforcing the prevalence of birth-related trauma. For example, Wright et al. (2018) found that 97.1 per cent of midwives (n = 644) reported experiencing traumatic births. These findings suggest that exposure to birth trauma is widespread and remains a significant risk factor affecting emotional well-being. While the symptoms and consequences of PTSD have already been addressed (see Slade et al. 2018), this review highlights how their impact on midwives' interpersonal functioning and emotional availability is often insufficiently recognised or supported in practice. These symptoms can lead to both physical and emotional exhaustion, which in turn negatively impacts interpersonal relationships and the capacity to provide compassionate care (Sheen et al. 2015).

A common contributing factor to midwives' emotional distress is the quality of relationships in the context of trauma, whether through direct or indirect exposure (Cramer and Hunter 2019). The quality and levels of empathic identification play an essential role in these interpersonal relations, particularly if these relationships have been developed throughout pregnancy (Hunter et al. 2008). Although midwives in the labour ward may only have had limited access to the development of these relationships, the intensity of intrapartum caring relationships maintains these levels of compassion. Both compassion and empathy are significant factors in midwifery relationships.

It is evident from the literature that the clinical practice of midwives and their engagement in their caring relationships can significantly affect their well-being. Witnessing traumatic births is just one of many factors, and repeated exposure can have cumulative effects (Sheen et al. 2015). In addition to adverse birth events, throughout their relationships with women, midwives are

exposed to complex histories involving domestic violence, mental health disorders, puerperal psychotic events, and safeguarding challenges, as well as challenging relationships with colleagues and organisations. Due to the uniqueness of midwifery's close relationships with women, managing this emotional terrain is crucial (Hunter et al. 2008; Leinweber and Rowe 2010; Leinweber et al. 2019). Where experienced midwives manage these invisible boundaries effectively, the balancing of emotional synchronicity with intrapartum women may leave NQMs and ECMs inadvertently at risk of experiencing emotional pain (Leinweber et al. 2019; Almorbaty et al. 2023). Consequently, during adverse events, midwives are at risk of developing a combination of traumatic profiles such as PTSD, STS, and vicarious trauma (VT). Additionally, prolonged and repeated exposure risks leading to compassion fatigue (CF) or burnout. Furthermore, it has been suggested that midwives with pre-existing conditions such as anxiety, mood disorders, or personal trauma history, including childhood abuse and neglect, may be more susceptible to developing these conditions (Dunkley and Whelan 2006).

The phenomenon of burnout amongst midwives has been extensively documented in the literature, highlighting its prevalence across all career stages, though research specifically focused on ECMs is limited (Cull et al. 2020). Moreover, there is limited research on the emotional and practice changes of midwives following adverse events, despite empirical findings that the vast majority have direct experiences of these events (Toohill et al. 2019). Surprisingly, Toohill et al. (2019) found that midwives were primarily concerned about fear of litigation rather than trauma, with a participant observing on “the degree to which fear is instilled into not just the women but midwives and doctors by the system, simply to avoid being sued” (p.68). They posited, similarly to Schroder et al. (2017), that, for some midwives, exposure to traumatic births strengthened clinical practice competencies. Conversely, those midwives who experienced levels of trauma, particularly those with a history of personal birth trauma, were twice as likely to suffer from probable PTSD (Toohill et al. 2019). Leinweber et al. (2017) found that 92% of their midwife participants reported peritraumatic emotions of helplessness (92%), and horror (75%) with only 51% who recalled immediate fear. This was explained by the fact that those midwives who endured interpersonal trauma were less likely to recall fear. The fact that 49% of midwives did not recall fear suggests that almost half may have experienced intrapersonal trauma as a result of these adverse events, yet only 33% were indicated to reach a possible PTSD diagnosis. However, as the first study to consider the emotional responses of midwives to peritraumatic emotions, Leinweber et al. (2017) did not explore the immediate behavioural or coping strategies of their participants. Furthermore, there is no published data on how many midwives have been diagnosed with PTSD, the types of treatment they were provided, or data on how many midwives

with PTSD leave the profession. Without this data, it is difficult to identify midwifery-based strategies to remediate this phenomenon.

Maytum et al. (2004) identified “developing supportive and honest professional relationships” (p.175) as the most important long-term personal strategy to cope with duty-related traumatic stress. Leinweber and Rowe (2010) argued that empathic identification was central in effective clinical practice and stated that empathy was “employed as a professional tool by midwives” (p.84). The consideration of empathy as a tool may be in reference to cognitive empathy (recognition) rather than affective (feeling) empathy, reminiscent of Hochschild’s (1983) concept of surface or deep acting in emotional labour, which also incurs a cost. While emotional labour strategies can help midwives manage their trauma-induced conditions, these strategies may lead to eventual burnout (Diefendorff et al. 2011). Wadsworth (2015) theorised that, in the absence of alternative coping strategies, individuals may resort to primitive coping approaches such as escapism, avoidance, or seeking refuge in safe relationships. Pezaro et al.’s (2020) systematic review identified coping strategies for escapism and avoidance via alcohol and substance misuse. Emotion-focused coping strategies such as escapism, avoidance, or distraction can be considered adaptive in the short term, but scholars agree that they are maladaptive in the longer term (Bolger 1990). Anecdotal evidence suggests that midwives have limited time to consider their trauma when paperwork and other duties are prioritised. While organisations may support hot-debriefs or restorative clinical supervision, these resources are unlikely to be immediately available and may be prioritised under certain conditions (Carter 2022; Catling et al. 2022). This means that midwives are more likely to resort to what Wadsworth (2015) referred to as the primitive forms of coping and worry as an emotion-focused coping strategy (Ben-Zur 2009). Although midwives may prefer to seek support from their peers, this can be constrained by a fear of appearing weak, which is shaped by the broader culture of blame. Emotional labour is therefore not limited to interactions with women but also extends to relationships with colleagues (Hunter et al. 2008). In such environments, midwives may suppress their emotions in order to maintain a professional reputation. Without access to supportive countermeasures, this emotional repression increases the risk of compassion fatigue and burnout.

3.6.2. Resilience

Developing emotion regulation skills is closely correlated with resilience (Gross 1998; Bonanno and Burton 2013). The persistent challenge of retaining midwives, the growing demands, and the complexities of clinical care have led researchers to consider resilience as a potential mediating factor. This perspective is based on observations that some midwives can tolerate

workplace challenges better than others and remain in the profession (Hunter and Warren 2014). Researchers have noted that resilient individuals are more likely to maintain their well-being in the face of workplace adversity and the emotional demands of care (Jackson et al. 2007; Allen and Palk 2018). However, in midwifery, resilience remains a complex and inconsistently defined concept. Without empirical profiling that considers individual differences, there is a risk that resilience interventions may overlook specific needs, thereby masking vulnerabilities and unintentionally promoting maladaptive behaviours. Tailoring resilience support strategies to reflect the diverse profiles of midwives may be essential for effectively addressing both personal and professional challenges.

3.6.2.1. Concept of resilience

Historically, developmental scientists viewed resilience through a psychopathological lens, considering it a stable, fixed trait associated with deficit models (Block and Block 1980; Richardson 2002; Kirkwood et al. 2010). Over time, this was replaced by more dynamic conceptualisations that framed resilience as an adaptive process, allowing for positive responses to adversity (Luthar and Cicchetti 2000; Masten 2001; Bonanno 2005; Rutter 2007; Masten and Tellegen 2012). However, the evolution of resilience theory into a process-based model led to greater divergence amongst scholars. Interdisciplinary perspectives from behavioural, natural, human, and social sciences have since shaped resilience according to each field's unique ontological and epistemological frameworks. For example, resilience has been seen as a positive adaptation response to adversity (Luthar and Cicchetti 2000), as an outcome of chronic childhood adversity (Masten et al. 1990; Bonanno and Diminich 2013), and as an emergent property within ecological systems, reflecting sustainability and resource strength (Almedom 2008). Other studies examine resilience within organisational and social-ecological frameworks (Adger 2000) or through the lens of transpersonal growth (Wilson 2013). Resilience has even been viewed as an aggregation of coping mechanisms (Lazarus and Folkman 1984; Garnefski et al. 2001), with each discipline advancing distinct conceptualisations. Despite the diverse approaches, there is now a consensus that resilience is better understood as a process rather than a static trait. However, the breadth of these conceptualisations has hindered the formation of a cross-disciplinary consensus. This conceptual variability has prompted some to question the validity of resilience as a unifying theory, with Wilson and Arvanitakis (2013) describing it as a "captivating but ultimately elusive concept" (p.1).

While Windle (2011) pragmatically suggested that resilience may be easy to grasp through a "bouncing back" metaphor, when considering this as a dynamic multilevel phenomenon the simplicity becomes problematic. As a result, the theory of resilience has continued to evolve

without a universal definition, with more recent formulations viewing it as a complex, transactional process that is highly context-dependent (Stainton et al. 2019; Kuldass and Foody 2022). While recent developments have enriched resilience theory, they also render consensus on its attributes, framework, and operationalisation less likely (Aburn et al. 2016). Without a clear operational definition, it becomes challenging to measure, predict, and interpret resilience constructs consistently across research (Windle 2011).

The absence of delineated antecedents, defining attributes, and consequences makes resilience-based interventions difficult to assess. Variability in definitions and methodological approaches has led to inconsistent findings, as highlighted by Robertson et al. (2015) in their review of resilience-based studies. Helmreich et al. (2017) also observed significant methodological limitations, such as inconsistent definitions and outcome measures, which further complicate resilience research. These methodological inconsistencies have contributed to a low probability of identifying resilience interventions that were more effective than control conditions (Kunzler et al. 2020). The ongoing theoretical ambiguities surrounding resilience have prevented the establishment of a robust evidence base that encompasses the “what, who, why, where, and when” of the concept.

Moreover, Reghezza-Zitt et al. (2012) argued that resilience’s relevance depends on “who says that there is resilience, when, and why”, suggesting that resilience often reflects the values and agendas of stakeholders, potentially prioritising economic and political interests (p.61). Aburn et al. (2016) echoed this critique, positing resilience as a socially constructed concept shaped by cultural and ideological values. Kirkham (2017) similarly suggested that, rather than urging midwives to become more resilient, systemic changes are needed to mitigate the organisational conditions that erode resilience.

Without a clear definition, researchers risk under-conceptualising resilience and overlooking potential adverse outcomes. Mahdiani and Ungar (2021) argued that resilience could be maladaptive when it masks vulnerabilities or hinders risk prevention. In midwifery, Kirkham (2017) raised a similar concern, suggesting that advocating for resilience as a “toughen up” approach could foster insensitivity or even oppressive behaviours within organisational cultures. As Mahdiani and Ungar (2021) noted, resilience, when poorly defined or applied indiscriminately, may lead to unintended outcomes, such as maladaptive behaviours or systemic failures. Therefore, it is essential to consider both the contextual implications and the limitations of resilience as a concept, understanding it as both an adaptive resource and, potentially, a source of unforeseen challenges.

3.6.2.2. Resilience in midwifery

Nevertheless, interdisciplinary resilience research has continued, often adopting definitions that align with positive psychological frameworks that are perceived as most adaptable to professional contexts. In midwifery, resilience research began a decade ago with Hunter and Warren (2014), who considered a positive psychological approach to the challenges of coping with workplace adversity (professional resilience) to begin to elucidate why some leave midwifery, but others stay. While their exploration focused on professional resilience, it also sought to illuminate the personal capacity of midwives to thrive in emotionally demanding work environments. Hunter and Warren (2014) referred to resilience-based studies in nursing that highlighted coping strategies such as self-efficacy, peer and supervision support, reflexivity, emotional awareness, and emotional intelligence to name a few. Their findings were similar to nursing-based research in the midwifery-specific context (autonomy, control, relationships). Their working definition of resilience was “the ability of an individual to respond positively and consistently to adversity, using effective coping strategies” (Hunter and Warren 2014, p.7). They also referred to “bouncing back”, which was highlighted by Mahdiani and Ungar (2021) as problematic, suggesting emotional awareness skills and emotional intelligence were crucial. These skills are implicated in the management of relationships where protective self-management leads to resilience through stress-inoculation, familiarisation and adaptation with time to adverse events.

Since Hunter and Warren’s (2014) landmark report, resilience research in the field of midwifery has remained largely exploratory, spanning pre- and post-registration and all career stages, with limited progress toward its practical applicability. The integrative review by Moran et al. (2023) identified a range of protective factors, including altruism, pride, self-esteem, optimism, autonomy, self-determination, and self-awareness. External factors such as a positive workplace culture, respectful professional relationships, and effective leadership were also recognised as contributing to resilience. While these factors enhance understanding of what sustaining resilience might entail, individual differences, including personality, previous experiences, and stress tolerance, shape how resilience manifests and develops in practice. Midwives bring unique psychological profiles to the profession, meaning resilience factors may operate differently depending on vulnerability and coping style. Nightingale et al. (2018) argued that higher emotional intelligence facilitated protective coping strategies in response to workplace adversity and was positively associated with empathy and resilience. Although the study did not explicitly examine emotion regulation, these findings support the interpretation of emotional intelligence abilities as contributing to emotional regulation processes that underpin adaptive professional

functioning. Interestingly, the same study found that high resilience was also associated with lower empathy, suggesting a potential emotional distancing effect in the pursuit of self-preservation. Therefore, although resilient outcomes are desirable, the mechanisms through which they develop and interact with relational care require further exploration.

In 2017, two reviews were conducted to identify approaches susceptible to positively affecting these factors. A scoping review completed by Wright et al. (2017) examined six studies conducted between 2011 and 2016 that explored the effectiveness of Mindfulness-Based Stress Reduction (MBSR) and coping strategies through positive reframing skills. However, Wright and colleagues concluded that there was a lack of midwifery-focused interventions. A further review by Pezaro et al. (2017) conducted a systematic mixed methods review spanning from 2000 to 2016, which found four additional studies focused on emotional distress and resilience-promoting interventions. Despite the overlap of the two reviews, both concluded that there was a lack of evidence-based interventions tailored specifically for midwives. Neither reviewers nor the studies reviewed provided an articulated definition of resilience. McDonald (2010) applied the definition of personal resilience as “The capacity of individuals to cope successfully and avoid the potentially harmful effects of significant change, adversity or risk” (p.7). Foureur et al. (2013) defined resilience as an innate energy, a motivating life force that guides individuals in cognitive transformation (Grafton et al. 2010) through a holistic self-care practice of mindfulness meditation (Siegel 2007).

In 2019, Clohessy et al. (2019a) completed a concept analysis and defined attributes of resilience. Similar to Moran et al. (2023), they identified social support, self-efficacy, and optimism, underpinned by positive reflection, as key attributes. These attributes support the ability to remain strong and thrive in the face of perceived adversity and stress. In a further explorative study with student midwives, Clohessy et al. (2019b) found that collegial relationships (peers, educators, and practice supervisors) enabled confidence, which supported self-efficacy, reflection, and optimism that promoted the ability to bounce back. Although the concept analysis by Clohessy et al. (2019a) was based on nursing and limited midwifery literature, it highlighted many attributes also found in Hunter and Warren’s (2014) research on self-identified resilient midwives with more than 15 years of experience. However, despite a consistent account of the resiliency of experienced midwives, these perspectives fail to consider how resilience may vary based on context, vulnerability, and interpersonal abilities (Hunter and Warren 2014).

Neglecting to explore individual differences amongst midwives in resilience research risks masking potentially harmful attributes of resilience and overlooks the unique profiles that shape

how midwives experience and manage adversity. Clohessy et al.'s (2019a) and Moran et al.'s (2023) conceptualisations assume that enhancing self-efficacy and optimism, as seen in other resilient professionals, can lead to positive change amongst midwives. However, this perspective overlooks key factors such as context, individual vulnerability, and interpersonal abilities, as identified by Hunter and Warren (2013). Professional relationships in midwifery are complex and challenging; while self-confidence and clinical self-efficacy are valuable traits, they must be realistic and achievable. In instances of clinical adversity, debriefing and supported reflection may help midwives process events, but these practices alone do not eliminate emotional stress. Without skills in emotional awareness and regulation (Hunter and Warren 2014), midwives may struggle to manage the emotional impact of adverse events. Consequently, some may continue to feel distressed or even perceive themselves as professionally inadequate. Without empirical profiling of midwives' individual characteristics, the complex nature of resilience remains under-examined, and certain undesirable behaviours, e.g. insensitivity or self-serving biases, risk being concealed under the resilience label (Bonanno et al. 2005; Mahdiani and Ungar 2021).

Resilience in midwifery is not universally positive. For example, Dyer and McGuinness (1996) identified a sense of overcoming, and a toughening effect. In midwifery, a "toughened-up" approach may reduce sensitivity (Kirkham 2015; Hunter and Warren 2014), and fostering optimism amid uncertain outcomes can even be perceived as cruel. Concepts like "cruel optimism" (Bracke 2016) and "false hope syndrome" (Polivy and Herman 2000) critique the notion that resilience inherently leads to thriving despite adversity. These concepts highlight that resilience's impact is context-dependent, shaped by both interpersonal and intrapersonal relationships. Another dimension often attributed to resilience is self-enhancement, defined as "the tendency toward overly positive or unrealistic self-serving biases" (Bonanno et al. 2005, p.985). Individuals with high self-enhancement may appear resilient on the surface, yet this can sometimes mask socially undesirable behaviours, such as manipulateness or narcissism (Campbell et al. 2000). Midwives who over the years have developed mastery over adversity (staying in the profession) and progressed to senior positions (managers and shift leaders) have often been cited in the literature as lacking sensitivity toward other staff, hence explaining the departure of junior midwives (Ball et al. 2003; Hunter et al. 2019). These factors further illustrate that resilience, when viewed without considering individual context and personality, may lead to negative consequences. Therefore, a more holistic and multidimensional approach is essential for resilience research in midwifery, one that incorporates empirical profiling and recognises the complex, situational nature of resilience. This approach will enable a more accurate and

balanced understanding of resilience in midwifery, accounting for individual vulnerabilities, contextual influences, and the relational dynamics that are central to the profession.

Midwifery scholars have advanced the concept of resilience within professional practice, emphasising the role of cohesion through communication, reflection, and supportive professional relationships. Their findings support the development of resilience skills during pre-registration education, recognising its foundational role in midwifery practice (Hunter and Warren 2013; Clohessy et al. 2019a; Moran et al. 2023). Acknowledging the role of working conditions and organisational sustainability in the relationship of professional and personal resilience, a discussion paper uniting leading midwifery scholars stated, “The notion of resilience in midwifery as the panacea to resolve current concerns may need rethinking” (Crowther et al. 2016, p.40). This reflection on the concept of resilience and how it applies to midwifery echoes the trajectory of the concept in the wider field of scholarly literature that evolved over time to a multisystem, multidimensional phenomenon and for which, to date, there is no universally agreed definition. Each profession embarks in the exploratory phase of how resilience can promote well-being but eventually reaches the operational impasse outlined above.

Unsurprisingly, resilience theory has struggled to achieve consensus amongst cross-disciplinary scholars, given the complex mix of positive and negative characteristics associated with the concept. Kirkham (2017) captured this complexity, stating, “the ability to constantly bounce back in the face of setbacks and adversity sounds like a characteristic of a punch ball rather than of a human being” (p.6), suggesting that the realities of clinical practice may be better addressed through a framework of resistance. Scholars in resilience research argue that without a unified conceptualisation, resilience can obscure underlying vulnerabilities. The argument here is not that resilience lies solely within the individual but, rather, advocates for an approach that considers both contextual factors and individual differences. To date, resilience literature in midwifery remains in an exploratory phase, particularly in identifying how resilience profiles may vary across career stages. There is substantial evidence on the reasons why midwives leave the profession. What is lacking is a strategy to develop emotional coping skills promoted by emotion regulation.

3.6.3. Emotion Work

More than twenty years ago, Hunter (2001, 2004) argued that the invisible, unspoken, and unremunerated emotion work of midwives was highly complex, and required skills to effectively manage the inter and intra-subjectivity of clinical practice. She stated that:

“It is essential that midwives develop their understanding of emotion at work in order to improve their own working lives, and to meet the needs of childbearing women and their families” (Hunter 2001, p.436).

Though largely invisible and unacknowledged, emotion work plays a pivotal role in clinical practice. Hunter (2001, 2004) and Hochschild (1983) describe emotion work as complex and demanding, requiring midwives to balance their emotions while engaging empathically with women in their care. However, without adequate emotional literacy and coping strategies, this emotional labour can lead to psychological strain (Moon and Hur 2011).

Hochschild (1983) theorised that the management of emotions within the context of emotional labour is a commodity in the workplace, but without remuneration it becomes “emotion work” (p.7). According to Hochschild (1983), emotional labour involves the subjective experience of emotions that are “transmuted” into the social world (exterior) (p.14), and the management of emotions is represented as a performance, either at the surface level (surface acting) or deep level (similar to method acting). Some scholars have raised the question of ethics with regard to acting or inauthenticity in professional relationships (Smith and Lorentzon 2005; Ward et al. 2020). Grandey et al. (2015) referred to the dark side of emotional labour as a by-product of dysfunctional working relationships. For example, midwives who use emotional labour to mask or ignore problems in order to maintain their status or that of the service exhibit behaviours similar to the *bystander effect* by pretending to cope. Whether emotion work is performed with attitudes of self-abnegation or self-preservation, awareness of performance is key to differentiating ethical concerns. This gap has, whether knowingly or unknowingly, been largely overlooked within the midwifery literature. So far, apart from Hunter and colleagues (2001, 2004) and Deery and Fisher (2010), there is little research on this in midwifery.

These complex subjective dimensions of emotion and their performances can lead to anxiety and stress, resulting in cognitive dissonance (Festinger 1957). Indeed, subjective inconsistency during the act of caring in the workplace, when performance is intended to meet expectations, can become an effort difficult to sustain. Just as competence in clinical skills is essential to manage perinatal events, emotion regulation is both intrinsic and integral to this process (Hunter 2001). Despite well-documented effects of practice-induced psychological distress (exhaustion, compassion fatigue, burnout, STS, PTSD, anxiety, and depression), there appears to be little progress in the exploration of subjective domains. The demanding nature of being with-woman during pregnancy and the intensity of intrapartum care require abilities to sustain and manage an array of positive and negative emotions. These emotional skills are as worthy as the

competencies of clinical skills. Without emotion regulation skills, midwives risk defaulting to professional and problematic cultural norms of emotional expressions as a protective mechanism through performance-based interactions. This means they suppress their authentic emotions, which Hochschild (1983) theorised was unsustainable, leading to exhaustion and burnout. Moreover, inauthentic expressions (performance) aimed at maintaining the appearance of a positive attitude negatively impact personal confidence if not addressed (Brotheridge and Grandey 2002).

The risk of internalising negative emotions is particularly high amongst the most vulnerable members of the midwifery profession, such as NQMs (Hunter and Deery 2005). The latter often face significant emotional conflicts transitioning into professional practice. Alongside the emotional weight of responsibility and accountability in clinical practice, they must integrate and emulate what they perceive as the ideal model of a midwife. This includes developing competencies such as confidence in managing relationships with both women and colleagues, an area often fraught with challenges (van der Putten 2008; Hughes and Fraser 2011; Bánovčinová 2017; Bacchus and Firth 2017; Cull et al. 2020).

Although this review primarily focuses on the experiences of ECMs, the literature suggests that these midwives' transitions to substantial roles are shaped by pre-registration supervisory experiences. The influence of practice supervisors is crucial in forming professional identity, yet studies have suggested that negative supervisory experiences may reinforce problematic workplace behaviours and contribute to the persistence of problematic workplace cultures. The practice supervision model aimed at developing confidence and competencies is an integral process in midwifery training. Conflicts in ideologies, power imbalances, and personality clashes can hinder the intended benefits of supervision (Green and Jackson 2014; Lewitt and McEwan 2023). Early experiences of practice supervisory relationships can be both inspiring and, at times, disempowering, especially in demanding clinical settings (Arundell et al. 2018; Sheehan et al. 2022). This dynamic may result in ECMs emulating dysfunctional behaviours in their practice supervisor roles, lacking foundational emotional skills, and relying on maladaptive coping mechanisms acquired during their training. This cycle perpetuates a culture where emotional strain remains unresolved, potentially leading to long-term psychological distress and diminished resilience. With little experience in their caring role and having to navigate the nuances of interpersonal relationships, ECMs assimilate explicit or implicit rules of emotional display, and acquiesce or harbour their emotional dissonance conflicts (Plimmer et al. 2022). Learning emotion work experientially leads to some vulnerable midwives replicating maladaptive coping mechanisms present in their environment, thereby perpetuating these in turn to future new

entrants. There is then an accumulation of unmet emotional strains that, with time, may lead to disillusionment, despondence, psychological distress, and attrition early on in their career (Hunter and Deery 2005; Hughes and Fraser 2010; Hunter et al. 2017; Cull et al. 2020; Sheehy et al. 2021).

Without emotional awareness and limited implementation of more adaptive positive regulation strategies, coping approaches can become maladaptive (suppression, avoidance, and rumination) (Polizzi and Lynn 2021). For example, distancing is a coping mechanism that helps to regulate interpersonal emotional engagement by placing boundaries in social relationships to avoid distress (Folkman and Lazarus 1986). Comparatively, emotional labour strategies also create emotional distance in and amongst social and professional relationships (Moon and Hur 2011).

Theories of impression management also highlight the complexity of emotion work. Deery and Fisher (2010) used sociologist Goffman's (1959) theory of symbolic interaction to show that midwives must constantly adjust their appearance, manner, and approach to assume specific social roles. However, the pressures of meeting organisational targets and adapting to frequent changes limit opportunities for continuity of care and relationships, adding to the emotional strain. Deery and Fisher (2010) identified Bolton's (2000) concept of "philanthropic motivational emotion work", which describes the empathy-driven commitment seen in midwifery practice, yet they argue that emotional literacy is still not adequately recognised or developed (p.272).

Hunter (2004) commented that midwives were aware of their emotion work and were far from lacking in emotional intelligence, though empirically unverified at the time. Midwives engage in emotion work to give the illusion of coping when actively suppressing emotions, such as fear, to maintain an appearance of confidence (Oates et al. 2019) because they internalise institutional values and culture (Deery and Fisher 2010). This behaviour inadvertently creates distance, particularly with colleagues, which Deery and Fisher (2010) suggested may explain why midwives tend to complain of the lack of support from others. The fear of negligence, litigation, or being struck off the midwifery register can induce significant anxiety in midwives. This anxiety can result in defensive practices aimed at protecting their careers, accompanied by ongoing rumination that can begin before a shift and continue long after it ends (Dahlen and Caplice 2014; Alexander and Bogossian 2018; Anchors et al. 2024). Balancing personal and professional commitments, managing institutional expectations, and upholding the integrity of care creates ongoing emotional challenges. The cumulative tension of these demands impacts midwives' resilience, leading them to perform rather than fully engage in their roles. Surface acting can

provide short-term relief but leads to burnout. Deep acting, by contrast, requires genuine emotions and ultimately leads to “deceive themselves by changing their own thoughts and feelings to create a sincere performance” and also create internal conflicts, as it demands midwives to alter their own emotions in order to appear sincere (Grandey and Sayre 2019, p.132). This performance-based emotional adaptation has been theorised to carry significant psychological consequences. Moon and Hur (2011) argued that persistent emotional labour may erode self-identity, leading to the development of a pseudo-identity that aligns with organisational or professional expectations rather than one’s authentic self. Such internal dissonance, sustained across time and settings, may further compromise midwives’ psychological well-being, particularly in emotionally intensive roles. These emotional difficulties highlight the importance of emotion regulation skills in the context of managing clinical practices and therefore demonstrate that emotional intelligence abilities, far from being an inherent achievement, are essential skills that require development.

Managing emotions in clinical practice and in relationships with other midwives and the multidisciplinary team are well-documented sources of tension (Hunter et al. 2019). These tensions can lead midwives to engage in daily performances, where they conceal their emotional struggles and present themselves as functional, friendly, and confident in order to maintain professional appearances (Hunter 2001; Deery and Fisher 2010). Coping mechanisms such as emotional labour, along with other conscious or unconscious adjustments made in response to environmental demands or adversity (Gross, 2015), may help midwives manage emotion work in the short term. However, these strategies also have the potential to create or exacerbate psychological vulnerabilities over time.

Hunter (2004) emphasised that emotional intelligence and literacy are essential for managing emotions effectively in midwifery, especially in clinical practice where relationships with colleagues and women are often a source of tension. Emotional intelligence, defined as “the ability to perceive, access, understand, and regulate emotions”, is critical to developing adaptive coping mechanisms and maintaining professional well-being (Salovey and Sluyter 1997, p.6). Without emotional awareness, midwives may adopt maladaptive coping strategies, such as suppression and avoidance, which provide short-term relief but increase vulnerabilities over time (Polizzi and Lynn 2021). Given this prognostic trajectory, emotion regulation skills are not only essential for effective practice but also for personal resilience and professional well-being, enhancing the ability to navigate the emotional dimensions of midwifery practice (Hunter 2004b; Deery and Fisher 2010; Nightingale et al. 2018; Tabib et al. 2024).

3.6.4. Interpersonal Factors

Interpersonal factors relate to the relationships and interactions that midwives encounter within the workplace. These include the management of professional relationships and collaborative coping strategies. Unlike fixed organisational constraints, modifiable factors present opportunities for staff (including managers) to influence the working environment and potentially mitigate some of the emotional and relational challenges associated with midwifery practice.

3.6.5. Managing Relationships

Emotionality of relationships

The ability to manage relationships is fundamental to providing holistic care for women during the perinatal period and is equally essential for midwives' emotional well-being, professional sustainability, and clinical safety. Hunter et al. (2008) referred metaphorically to a tapestry to illustrate the central role that relationships represent in midwifery care: "relationships are the hidden warp threads holding everything together" (p.132). While research on relationship management is limited, studies consistently show that negative relationship experiences are a key reason why midwives leave the profession (Ball et al. 2003; Barker 2016; Harvie et al. 2019). In contrast, positive relationships can foster a sense of belonging, job satisfaction, and resilience (Bloxsome et al. 2019). However, barriers to building these positive relationships arise from both contextual and interpersonal factors, creating challenges that impact midwives' ability to establish meaningful connections with colleagues and clients alike (Cramer and Hunter 2019).

While midwifery literature has emphasised the importance of good communication skills for effective care delivery (Hunter et al. 2008; Škodová 2016; Crowther et al. 2019), it often overlooks the broader scope of interpersonal skills that contribute to relationship management. Focusing solely on communication skills often masks deeper intrapersonal issues. Individuals can use communication techniques to create an illusion of relational competence or empathy without possessing the underlying emotional skills that ensure ethical and supportive interactions (Grandey and Diamond 2013). This is particularly so when communication is contingent on a wage (Hochschild 1983).

Tabib et al. (2024, p.1) expressed "Doing is never enough, if 'being' is neglected", arguing that being requires emotional intelligence skills. Interpersonal skills such as emotional literacy and conflict resolution provide a better foundation for genuine relational engagement, enabling midwives to manage both client relationships and professional interactions with authenticity and

resilience. Without developing these skills, midwives may find that communication alone is insufficient for handling the intense emotional demands of their role, leading to maladaptive coping mechanisms that can undermine both clinical safety and personal well-being (Deery and Fisher 2010; Tabib et al. 2024).

Although communication is, indeed, foundational, interpersonal skills encompass a wider range of abilities in self and social management skills, empathy, and conflict resolution. These skills are essential for managing the emotional and relational complexity of midwifery practice, particularly in contexts that require navigating power dynamics, supporting clients through distress, and sustaining collegial relationships. Yet, beyond foundational communication, there is limited research into how these interpersonal skills are developed and applied in midwifery. Understanding and fostering these broader interpersonal competencies may be pivotal for supporting both midwives' well-being and the quality of care they provide.

ECMs, like students, are particularly vulnerable to relational power dynamics within midwifery, which can have lasting effects on their careers (Cull et al. 2020). Younger midwives and ECMs can struggle to negotiate professional relationships and establish boundaries, which can lead to emotional exhaustion (Hunter and Deery 2005; Deery and Fisher 2010). The initial clinical relationship that ECMs form is often with a practice supervisor, whose impact on their confidence and self-esteem, particularly during their early training, can be profound (Hughes et al. 2011). Yet these relationships can also expose new members to entrenched practice styles that may conflict with university-taught values, placing them in a vulnerable position where they may feel compelled to conform to task-oriented approaches rather than woman-centred care (Armstrong 2010). Consequently, ECMs may have adopted surface-level coping mechanisms, such as emotional suppression, to fit into the established culture, which can hinder their development of genuine relational skills (Armstrong 2010; Cull et al. 2020).

Interpersonal dynamics in supervision play a crucial role in shaping the professional values, care styles, and coping mechanisms of future midwives. Research indicates that a practice supervisor's emotional awareness, relational style, and approach to care (task-driven vs. woman-centred) significantly influence learning experiences (Nolan et al. 2022). Nicolini and Roe (2014) found that supervisors often, albeit unintentionally, reinforce task-driven care due to clinical pressures. Without emotional literacy and the ability to model adaptive coping, supervisors may perpetuate a culture in which ECMs engage in emotional labour (e.g. surface acting) to appear competent (Oates et al. 2019). This can lead to internalised emotional suppression, increasing vulnerability to burnout and relational strain.

Beyond individual supervision, systemic and cultural barriers also impede the development of supportive relationships within midwifery. Fragmented models of maternity care, high staff turnover, and the frequent shifting of midwives across services prevent the continuity of collegial relationships, leading to relational isolation (Curtis et al. 2006b; Lavender and Chapple 2004). Collegial relationships have been highlighted as key to developing confidence and belonging (Hunter 2005). However, ideological, attitudinal, differences between hospital- and community-based midwives, together with the dislocation of practices, contribute to fragmented relationships and limit opportunities for camaraderie and shared problem-solving (Kirkham 1999; Hunter 2005; Crowther and Lau 2019). Kirkham (1999) argued that “a culture which so fragments midwives’ awareness of their common problems prevents their working together for common solutions” (p.738). The lack of connectedness leads to superficial relationships that lack trust and confidence (Hunter et al. 2008; Kirkham et al. 2006; Deery 2003). This isolation not only hampers communication and teamwork but also erodes the sense of belonging necessary for sustainable practice. The quality of collegial relationships is a prerequisite for effective communication and the emotional depth of professional interactions. Hunter and Deery (2005) emphasised the importance of developing communication and emotion management skills to support midwives’ well-being and promote clinical safety. Likewise, well-being and quality relationships with colleagues were key for early career sustainability (Cramer and Hunter 2019; Cull et al. 2020; Hastie and Barclay 2021; Capper et al. 2023; Donnelly et al. 2024).

For midwives, developing emotional and relational skills is essential for navigating the interpersonal demands of the profession. Quality relationships with colleagues are crucial for building confidence and fostering a sense of belonging (Hunter 2005). While structural changes such as small midwifery-led, one-to-one case-loading schemes offer promise for fostering supportive environments (Kirkham 2007; Fenwick et al. 2012), midwives must also cultivate emotional literacy to manage relationship dynamics effectively. As Hunter and Deery (2005) highlighted, emotional literacy and communication skills are integral for midwives’ well-being, clinical safety, and long-term sustainability in the profession. Thus, integrating relational skills training into education can help future midwives navigate the emotional and interpersonal challenges they will inevitably face, supporting both their professional and personal resilience.

This thesis argues that, by improving midwives’ abilities to manage their emotions, these relational skills can lead to the improvement of their advocacy for women in their care, for themselves, colleagues, and for their profession itself (Patterson and Begley 2011; Bánovčinová 2017; Cassano et al. 2020).

3.6.5.1. Collegial incivility

Hunter et al. (2008) argued that “the quality of relationships is inevitably linked to the quality of communication, and effective communication is essential for safe practice” (p.133). However, despite the emphasis on communication, reports such as Ockenden (2022) reveal persistent communication failures in maternity services that contribute to compromised clinical outcomes. These findings suggest that communication skills alone may not be sufficient to ensure clinical safety, as communication breakdowns often stem from deeper relational issues within midwifery culture, including collegial incivility, power imbalances, and a lack of psychological safety.

Many have highlighted that midwifery is a caring profession often characterised by self-sacrifice. However, Kirkham (1999) posited that “working within a culture of caring and self-sacrifice, may not equip midwives with the skills to support and care for each other” (p.735). The “toughening-up” approach echoed in the resilience literature may be reflective of a culture that endures and carries on (Kirkham 2017). These cultural norms of toughened and resilient attitudes, which Mahdiani and Ungar (2021) highlighted as the dark side of resilience, inhibit the recognition and actions against incidents of horizontal violence (HV). In large organisations, hierarchical power differentials and a laissez-faire style of leadership play a role in the development and maintenance of HV (Salin and Hoel 2010). Collegial incivility is enabled in environments that permit it and directly or indirectly reward it through promotions (Gillen et al. 2022).

Persistent incivility in midwifery may reflect unaddressed emotional needs, particularly relating to stress management, recognition, and professional support. When such needs are unmet, midwives may adopt maladaptive coping behaviours, including the displacement of frustration onto colleagues, which can contribute to a hostile work environment and sustains a cycle of incivility. While effective communication is vital, it must be accompanied by emotional literacy and interpersonal competence to genuinely promote a safe and cohesive workplace (Hunter et al. 2008; Crowther et al. 2019). The persistence of collegial incivility and hierarchical divides in midwifery suggests that a focus on communication alone may obscure deeper unresolved relational dynamics.

Poor collegial relationships are often exacerbated by ideological divides, entrenched hierarchical structures, and a lack of compassion or trust. Such dynamics can lead to hostile work environments marked by incivility and HV or bullying. These encompass a range of unprofessional behaviours, both overt and covert, yet they remain poorly defined and inconsistently addressed, contributing to their persistence in maternity settings (Crawshaw 2009; Taylor and Taylor 2017). HV in midwifery has not been as thoroughly studied, though it

frequently appears in accounts related to midwifery well-being and attrition (RCM 2016b; Catling et al. 2017; Hunter et al. 2017; Harvie et al. 2019; Geraghty et al. 2019).

The hierarchical culture of maternity services often reinforces power differentials, and both midwives and women report experiencing bullying (Dietsch et al. 2010; Catling et al. 2017; Stoll et al. 2018; Catling and Rossiter 2020). These power differentials disproportionately affect ECMs, who, like student midwives, are frequently targets of HV. A systematic review found that most student midwives experienced HV, with practice supervisors identified as the primary source (Capper et al. 2020). ECMs often report difficult rapports with shift leaders, managers, and medical staff (Geraghty et al. 2019; Cull et al. 2020). Witnesses or bystanders of HV are also negatively affected, with the fear and stress associated with these encounters having a profound impact on confidence, emotional well-being, and professional development (Thornberg et al. 2012). Bandura's socio-cognitive theory of agency highlights how witnessing HV can deter individuals from intervening or speaking out, thereby sustaining a culture of incivility (Bandura 1989).

HV compromises the agency of vulnerable midwives while reinforcing established norms. These embedded norms may be resistant to changes in clinical practice that are necessary for improvement. Individuals resistant to change may fear the destabilisation of their knowledge base or authority within the hierarchy, especially if they were once victims of HV (Gray 2018). Kirkham (2007) described HV as a coping mechanism for staff under stress: "Bullying is situated towards the end of a continuum of neglect and negative treatment of relationships in the NHS", where midwives' frustration with unmet ideals of care can manifest as hostility toward colleagues (p.13).

The complexity of midwifery work environments further compounds relational challenges. Organisational structures, limited resources, fragmented care models, and hierarchical power dynamics leave little time for meaningful relationship building (Crowther et al. 2016). Frequent rotations and cross-service shifts aimed at meeting continuity of care requirements often disrupt collegial connections, isolating midwives and impeding the formation of cohesive teams (Curtis et al. 2006a; Lavender and Chapple 2004). This isolation is especially detrimental, as positive collegial relationships have been shown to enhance confidence, belonging, and job satisfaction (Hunter 2005).

Given the evidence that collegial relationships directly impact clinical safety, there is a clear need for midwives to develop relational skills such as emotional literacy, conflict resolution, and empathy. Emotional literacy enables midwives to recognise and address the emotional dynamics

of their interactions, reducing the reliance on surface acting and enhancing the authenticity of their relationships (Hunter 2004b). Research indicates that positive collegial relationships are foundational to midwives' well-being and retention, yet there is limited literature on fostering these skills within the profession (Crowther et al. 2016).

Without foundational skills in emotional literacy and intelligence, midwives may be unable to recognise and address relational issues, contributing to further HV and attrition. Just as midwives develop expertise in identifying deviations from normal health conditions, emotional literacy would enable them to recognise deviations in relational dynamics that may jeopardise both personal well-being and client care (Deery and Fisher 2010). Developing relational competencies could not only mitigate HV but also improve team cohesion, communication, and clinical outcomes.

3.6.6. Coping Strategies

Recent years have seen a surge in resilience-focused research to support emotional well-being and improve retention in midwifery. Pezaro (2017) identified resilience interventions, including mindfulness-based interventions, clinical supervision, and resilience workshops. Mindfulness-Based Stress Reduction (MBSR), initially developed for managing chronic pain (Kabat-Zinn 2005), was adopted in three of the six studies (Foureur et al. 2013; van der Riet et al. 2015; Warriner et al. 2016). However, the outcomes of MBSR applied to health professionals have been mixed, suggesting limited effectiveness for reducing burnout or improving resilience in care settings (Kriakous et al. 2021).

3.6.6.1. Evaluating mindfulness and supervision-based interventions

In the first MBSR pilot for nurses and midwives, Foureur et al. (2013) noted that integrating mindfulness into daily life posed a significant challenge. Fewer than half of the sessions were attended, despite statistically significant improvements in psychometric scores for attendees. Similarly, van der Riet et al. (2015) piloted a seven-week university-based mindfulness programme for student nurses and midwives, reporting engagement challenges with limited adherence to homework and no formal outcome measures to gauge effectiveness. Warriner et al. (2016) applied Mindfulness-Based Cognitive Therapy (MBCT), tailored specifically for midwives, and found high satisfaction immediately post-course (97%). However, only 17% continued with daily practice at follow-up, highlighting adherence as a persistent barrier to effective mindfulness interventions in midwifery.

Wallbank et al. (2010, 2013) introduced individual and group restorative supervision for midwives, with positive outcomes reported in both formats. However, they observed that

participants were often reluctant to fully disclose concerns due to fears of judgement and the prohibitive culture of blame within maternity services. These findings highlight the challenge of creating safe spaces for midwives to process emotional stressors openly, a necessary component for any effective resilience interventions. Notably, these studies did not include measures for emotional labour, burnout, or resilience, limiting the scope of their findings.

A recent Cochrane review protocol (Helmreich et al. 2017) concluded that, while resilience training programmes have been applied in various healthcare contexts, their efficacy remains undetermined. Midwifery lacks a comprehensive, evidence-based framework for resilience training that specifically addresses factors like emotional labour, relational dynamics, and workplace adversity. Pezaro (2017) called for more research into modifiable emotional factors as a means of promoting sustainable coping strategies for midwives (Hunter and Deery 2005; Hunter and Warren 2014; Cramer and Hunter 2019).

3.6.6.2. Challenges with engagement and practical barriers

Beyond the need for effective intervention design, the issue of engagement remains a significant barrier. O’Riordan et al. (2020) piloted a suite of support interventions, including self-care resources, team bonding, and post-shift reflection meetings, for midwives and doctors. Despite moderate to high pre-test levels of exhaustion amongst participants, only five midwives completed the post-test measures, citing exhaustion, family commitments, and personal priorities as reasons for non-engagement. Similarly, Wright (2018) attempted an online approach with asynchronous yoga and MBSR courses, observing improved adherence but still facing the persistent challenge of time constraints reported by participants.

As Hunter (2004) noted, enhancing emotional literacy and coping skills in midwifery is critical, particularly as the profession demands a high level of emotional engagement. She advocated for the inclusion of these skills in pre-registration curricula, highlighting that participation in well-being initiatives is often hampered by the demanding nature of midwifery practice. To address these barriers, Pezaro (2017) suggested online interventions, as these allow for greater flexibility and potentially higher adherence. However, as Wright (2018) observed, even web-based formats require ongoing adjustment to align with midwives’ unpredictable schedules and high workload demands.

3.6.7. Integrating Emotional Literacy and Sustainable Coping Skills

Moving forward, future research should explore adaptive, flexible approaches that are seamlessly integrated into the midwifery work environment. Emotional literacy and relational skills, essential for managing workplace adversity, could be integrated into pre-registration

training, as Hunter (2004) recommended, to provide foundational support that can mitigate the effects of burnout and emotional fatigue. Developing resilience frameworks that prioritise emotional labour and relationship management will better equip midwives to navigate the emotional demands of their roles, improving both personal well-being and professional retention.

3.7. Addressing the Gap: Emotion Regulation

Amid the ongoing challenges within midwifery, researchers are increasingly focused on developing effective coping strategies and interventions to improve midwives' well-being. Acknowledging the difficulty of changing entrenched organisational structures, Cramer and Hunter (2019, p.9) argued for prioritising modifiable risks associated with workplace adversity, recommending "developing skilful behaviours to mitigate the effects of risky working conditions, benefiting themselves, each other, birthing women, and their families."

A key finding of this scoping review is the identification of emotion regulation as the central gap in the midwifery literature. While much attention has been given to organisational and resilience-building interventions, emotion regulation remains underexplored despite its foundational role in addressing both interpersonal and intrapersonal challenges. Emotion regulation is key to building resilience and managing workplace adversity, making it a vital focus for intervention.

Emotion regulation is central to understanding how interpersonal and intrapersonal factors, both modifiable and non-modifiable, interact to shape midwives' emotional well-being. Developing emotion regulation capacities may therefore be key to equipping midwives with the psychological resources needed to manage emotionally complex practice environments.

3.8. Emotion Regulation: Anchoring Inter/Intrapersonal Factors

Interpersonal and intrapersonal factors are inherently anchored in emotion regulation (Gross 1998, 2015). Interpersonal factors, such as relationships with colleagues, clients, and the broader organisational context, involve the capacity to manage emotions in social interactions, maintain professional boundaries, and handle conflicts constructively. Similarly, intrapersonal factors, including resilience, coping strategies, and emotional labour, depend on the ability to regulate internal emotional states, particularly under stress or adversity.

3.9. Interaction Between Modifiable and Non-Modifiable Factors

Non-modifiable factors, such as poor work-life balance, inadequate organisational support, and high workloads, establish a work environment where midwives face chronic stress and adversity. These systemic issues often manifest in interpersonal tensions and intrapersonal struggles, accompanied by fear, guilt, or emotional exhaustion. Modifiable factors, such as effective coping strategies, can mitigate the impact of these systemic pressures. However, the ability to employ such strategies depends significantly on midwives' emotion regulation capacities (Mikolajczak et al. 2009).

Resilience and coping strategies are inherently linked to the ability to regulate emotions during stressful situations. A midwife's capacity to manage emotional labour, maintain autonomy, and foster positive professional relationships is underpinned by well-developed emotion regulation skills (Brotheridge 2006). Without these skills, the cumulative burden of non-modifiable factors exacerbates emotional distress, contributing to burnout and attrition.

3.10. Emotion Regulation as a Key Intervention

Emotion regulation is a central concept for addressing both modifiable and non-modifiable challenges, equipping midwives with the capacity to manage emotional responses effectively. By enhancing midwives' ability to identify, understand, and manage their emotional responses, emotion regulation can mitigate the adverse effects of systemic pressures and interpersonal conflicts. This review identifies a critical gap in the literature: while organisational interventions and resilience-building strategies are often recommended, few studies directly target the development of emotion regulation skills as a core component of well-being initiatives.

The identification of emotion regulation as a key gap aligns with the growing recognition of its role in fostering resilience, improving interpersonal effectiveness, and reducing the perception of workplace adversity. Addressing this gap by strengthening emotion regulation could enable midwives to navigate high-pressure environments more effectively, contributing to improved well-being and retention. This synthesis sets the stage for future research into targeted strategies that address this gap.

3.11. Strengths and Limitations of the Scoping Review

This scoping review offers several strengths that enhance its contribution to the understanding of midwifery well-being. First, it follows the stringent Arksey and O'Malley methodological framework as outlined in Section 3.3. Secondly, it systematically maps the literature, providing a comprehensive overview of several related factors that affect midwives' emotional well-being and resilience. In other words, it is not just about one element. Thirdly, by categorising these factors into modifiable and non-modifiable categories, the review highlights both systemic and individual challenges faced by midwives. Fourthly, the inclusion of diverse study designs and sources ensures a broad and inclusive perspective on the issue. Last, but not least, it is the first comprehensive review of its kind.

Some limitations must also be acknowledged. The scoping review did not include a longitudinal component, which could have provided insights into changes over time. Additionally, the categorisation of factors into modifiable and non-modifiable may appear reductive; it serves as a metacognitive framework to map the landscape of challenges facing midwives. This binary approach highlights actionable areas. At the same time, it acknowledges the complex and interdependent nature of these factors, which collectively contribute to the challenges to midwives' well-being. Further limitations are found in the exclusion of studies from regions with vastly different healthcare contexts. Additionally, the exclusion of studies published in languages other than English may have limited the diversity of insights. Furthermore, restricting studies to those published from 2014 onward may have excluded earlier foundational research relevant to midwifery well-being. Lastly, although the eligibility criteria were designed to focus on midwives as the primary population, it is possible that some detailed insights from adjacent healthcare professions or student midwives may have been missed. These limitations highlight the need for further primary research to expand upon the findings presented here.

Overall, this scoping review provides a balanced foundation for addressing the critical gap in emotion regulation and lays the groundwork for future exploration in this area.

3.12. Conclusion

This chapter has presented a comprehensive review of findings from the scoping review, highlighting the complex and interrelated factors that influence well-being and resilience in midwifery. The literature reveals that immutable factors, such as organisational structures, the nature of midwifery care, and clinical practice standards, significantly contribute to job dissatisfaction and retention issues within the profession. These entrenched systemic issues

create challenges that impact midwives' ability to thrive in their roles. Although these organisational and structural challenges are largely non-modifiable, they inevitably generate intra and interpersonal stressors that impact midwives' well-being and resilience. These factors, however, intersect with areas within the scope of individual agency, where modifiable strategies such as emotion regulation can be developed and applied. For instance, fostering emotion regulation skills may enable midwives to better manage the stressors associated with organisational demands, improve interpersonal dynamics, and enhance their capacity to maintain resilience in the face of adversity.

The '*cost of caring*' in midwifery is particularly pronounced in large, resource-constrained organisations like the NHS. Persistent staff shortages and limited resources create significant challenges and severely restrict midwives' flexibility and work-life balance. These conditions create a '*caring dilemma*', whereby midwives' professional agency and control are constrained by organisational priorities. Furthermore, the autonomy, accountability, and clinical responsibilities inherent in midwifery practice place substantial emotional and psychological burdens on midwives, exacerbating the risk of burnout and emotional exhaustion. The added responsibility of clinical decision making in high-pressure environments leads to a cycle of stress, contributing to strained relationships between midwives, colleagues, and management, often met with inadequate support.

The emotionality of care is another significant aspect; it has the potential to foster positive emotional well-being, such as satisfaction and fulfilment, but also to invoke various negative emotions, including stress, guilt, and frustration. Scholars have increasingly advocated for the development of emotion regulation skills and emotional literacy to help midwives navigate these complex emotional demands. This aligns with the earlier identification of emotion regulation as a critical gap in the literature, highlighting its potential to mitigate the emotional and psychological challenges inherent in midwifery practice. Although midwives possess expert clinical skills, there has been limited focus on the emotional competencies that are essential for effective decision making and maintaining health and safety standards. The dynamics of caring relationships extend beyond patient interactions to include complex, interdependent relationships with colleagues, managers, and organisational structures. Midwives must navigate these multifaceted demands while managing their own well-being, which can be especially challenging in the face of exhaustion, compassion fatigue, or secondary traumatic stress.

When emotional resources are depleted, midwives may have limited coping strategies beyond maintaining appearances through emotional labour. Therefore, effectively managing these

intricate interpersonal and intrapersonal relationships is crucial. The findings of this review highlight the importance of emotional resilience and relational skills as core competencies in midwifery, as they not only support individual well-being but also enhance the quality and safety of care provided to women and their families. Specific frameworks, such as emotion regulation training and relational skills development programmes, could help midwives build these essential competencies. Embedding these into professional development initiatives would provide midwives with practical tools to navigate the emotional and interpersonal complexities of their roles effectively. This chapter concludes by affirming the need for a more holistic approach to midwifery support frameworks, which must go beyond communication skills to incorporate emotional and relational competencies, thus enabling midwives to thrive amid the challenges of their profession.

Building on the findings of this scoping review, the next chapter explores how emotion regulation training may serve as a targeted and modifiable strategy to address the emotional and relational challenges identified in midwifery. Chapter 4 introduces Dialectical Behaviour Therapy Skills Training (DBT-ST) as a structured psychoeducational approach with relevance to the non-clinical midwifery context and critically examines its potential application for enhancing emotional regulation among midwives.

Chapter 4. DBT-ST for Midwives

4.1. Chapter Overview

As highlighted in Chapter 3, emotional regulation strategies (Emotional Intelligence (EI)) have been recommended by midwifery scholars. This chapter provides a rationale for employing Dialectical Behaviour Therapy Skills Training (DBT-ST) as an effective strategy to address the emotion regulation (ER) challenges faced by midwives. The chapter begins with the premise of emotion regulation, followed by a breakdown of DBT skills modules. DBT-ST is then critically analysed in relation to other psychologically based interventions and approaches. This demonstrates its potential as a universal psychoeducational strategy, tailored to the unique needs of a midwifery-based non-clinical population.

4.2. Justification for Emotion Regulation

Emotional support to childbearing women and their families is a fundamental aspect of midwifery. The management of emotions with women and other health professionals (colleagues) is foundational for both safety and sustainability of practice, and ER skills are therefore essential (Hunter 2005; Deery and Hunter 2010; Crowther et al. 2016; Tabib et al. 2024). Although clinical skills are the subject of continuous organisational scrutiny for public safety and the maintenance of care standards, there is limited attention on emotion work and the underlying abilities that underpin clinical practice. Moreover, little is known about the internal mechanisms that are affected by the emotional minefield of practice, given that research evidence has only identified their consequences: attrition, burnout, trauma, and fear. Compellingly, the Office of National Statistics (ONS) released a report identifying the number of suicides in nursing and midwifery between 2011 and 2019 (a total of 300). This represented a 23% higher average compared with other professions in the UK (ONS 2021; Groves et al. 2023). There has been no specific research focused on the psychological factors affecting midwives, nor is there any direct research evidence of psychological disorders, behavioural maladaptation, or emotional dysregulation profiles of midwives. However, research evidence is unequivocal about the impact that workplace adversity has exerted on the midwifery workforce. Objective-based recommendations have been made, given changes to models of care that would benefit midwives, such as Continuity of Care (CoC), Professional Midwifery Advocate (PMA), preceptorship, debriefing, and flexible working policies. However, subjective-based

recommendations made by Hunter and Deery (2005) have received less research attention and remain to date unacknowledged.

4.3. Emotion Regulation Abilities

ER is a cognitive/behavioural process that is facilitated by conscious or unconscious affective states that respond to an environment adaptively (Gross 2015). Conversely, the inability to modulate emotions adaptively is posited to increase vulnerability to distress and emotional dysregulation, leading to maladaptive behavioural responses (Aldao et al. 2010). Difficulties of ER are at the centre of dysfunctional behaviours, which Linehan (2015a, p.318) argued was “a behavioral solution to intolerably painful emotions”.

Daily stressors have the propensity to provoke emotional distress that affects how individuals manage their goal-oriented behaviours (Bolger et al. 1989), particularly if these stressors are susceptible to becoming chronic burdens (Lockwood et al. 2022). Midwives’ working conditions and exposures to the risks and adverse events can lead to chronic burdens through cumulative stress exposure. Although some midwives are able to manage their emotions well and even thrive in their clinical practices, others find the management of emotions debilitating and develop maladaptive coping (Pezaro et al. 2021) or leave the profession altogether (Ball et al. 2003).

Therefore, in order to develop ER abilities, emotional intelligence factors such as awareness of emotions, understanding their function, and how they intersect with cognitive activities (decision making, problem solving etc.) are foundational. Distinctively, ER involves the management of emotions in both self and others.

“We also need fluency in the language of emotions, so that we can articulate feelings. Developing awareness of our feelings should increase our insights into the feelings of others, thus enhancing the quality of our relationships with clients and colleagues” (Hunter 2004b, p.606).

Emotional intelligence as a topic of research has received limited attention in the profession, and although it is periodically raised as a concept worthy of further investigation (Hunter 2004b; Patterson and Begley 2011; Tabib et al. 2024), there have been no empirical studies to date. Conversely, in nursing research, Delgado et al.’s (2020) integrative review of resilience and emotional labour identified that emotional intelligence was a key factor in resilience to distress. Their recommendations call for future interventions to focus on emotional labour and ER through emotional intelligence training. These views reflect Hunter’s (2004a) argument that

highly complex and emotionally demanding midwifery practice requires emotionally intelligent midwives to effectively manage their emotion work.

Foster et al. (2015) argued that inclusion of emotional intelligence in curricula would benefit early career nurses' abilities to manage emotions in the workplace. Newly qualified nurses lack experience in professional relationships, making them particularly vulnerable to stress and burnout (Foster et al. 2015). Scholars in both nursing and midwifery have recommended EI skills should be developed prior to registration (Hunter 2004b; Patterson and Begley 2011; van Zyl and Noonan 2018; Tabib et al. 2024). This would enable the development of ER skills during pre-registration training to promote antecedent coping skills (problem-focused) rather than response-focused coping (emotion-focused) strategies. Moreover, van Zyl and Noonan (2018) argued that problem-focused coping skills were more effective than restorative strategies (engaging in self-care or recovery strategies, such as rest breaks, relaxation, sharing/venting, social support, and exercise) that are often advocated in well-being and resilience interventions in midwifery literature.

Tabib et al. (2024) highlighted that ER abilities were hindered by midwives' levels of personal stress. They argued that managing emotions had a positive impact on the availability to engage in empathic and compassionate care. Therefore, increasing emotional intelligence as a conceptual goal to improve the emotional well-being of healthcare professionals and their retention appears to be supported by researchers. Unfortunately, as with resilience, emotional intelligence interventions lack the necessary framework and evidence base (Biggart et al. 2016).

In light of these challenges, there emerges a pressing need to identify an adaptable, flexible framework and curriculum that can be tailored to meet the unique emotional and cognitive demands of midwifery. A programme that is capable of addressing a wide range of emotional challenges is essential. Moreover, such a curriculum must be not only versatile but also firmly rooted in evidence-based practice. Midwifery, as a discipline grounded in clinical evidence, requires interventions that are supported by robust research to ensure their efficacy and safety. Therefore, the selection of any new training programme must be predicated on a solid foundation of empirical evidence, demonstrating tangible benefits in enhancing emotional intelligence and regulation capabilities amongst midwives.

4.4. Introduction to Dialectical Behaviour Therapy

4.4.1. Introduction

Dialectical Behaviour Therapy (DBT) is a treatment developed by Marsha Linehan (1993) based on the broad principles of Cognitive Behavioural Therapy (CBT). DBT was originally aimed at addressing the needs of patients diagnosed with borderline personality disorder (BPD) who presented with risks of suicidal and self-destructive behaviours. Linehan (1993) found that BPD sufferers often showed resistance to standard CBT, leading her to expand the CBT model to include dialectical philosophy and Zen practice.

The dialectic theory is founded on the concept of thesis, antithesis, and synthesis (Linehan 2015a), meaning that truth is relative to individual contexts. There are many truths dependent on who believes them, who can accept the different truths (antithesis), and who can hold these differences and progress with these multiple tensions (synthesis). The synthesis of acceptance is facilitated by skills found in Zen philosophy and its practice of meditation, which enhances mindfulness and awareness of the present moment. Kabat-Zinn (1994) defined mindfulness as “awareness that arises through paying attention, on purpose, in the present moment, non-judgmentally” (p.4). Linehan (1993) incorporated this skill to support both acceptance and change by developing self-awareness (observing, describing, and focusing) to reduce maladapted thinking and behaviours. A major proportion of the therapy focused on skill training. DBT skills include four modules: 1) core mindfulness; 2) ER skills; 3) distress tolerance; and 4) interpersonal effectiveness.

However, standard DBT is considered a complex intervention due to its multiple components and its duration, which spans over 12 to 24 months (Cristea et al. 2017). In addition to the complexity of standard DBT, the length and intensity of treatment make it costly, and attrition can be high in the context of personality disorder treatments. In light of these challenges, standalone DBT Skills Training (DBT-ST) has gained empirical evidence showing its efficacy as a transdiagnostic treatment (Valentine et al. 2015).

Both standard DBT and standalone DBT-ST have been the subject of numerous randomised controlled trials (RCTs) specific to BPD. Meta-analyses of these RCTs have found that DBT was effective in reducing psychiatric crisis and self-directed violence (suicidal behaviours, deliberate self-harm), depression, hopelessness, anger, eating disorders, substance dependence, and impulsiveness (Kliem et al. 2010; Panos et al. 2014; DeCou et al. 2019). Although Cristea et al. (2017) found that the effectiveness of DBT for BPD was short-term, other RCTs identified DBT

skills within the standard model as pivotal for the mechanism of change for BPD (Linehan et al. 1999; Linehan et al. 2002; Linehan et al. 2007; Neacsiu et al. 2010).

DBT-ST, with its manualised skills training protocol, is now widely recognised as a transdiagnostic evidence-based treatment capable of enabling emotional regulation, suggesting that DBT skills are effective across a variety of emotional needs, including as a psychoeducational intervention for non-clinical populations (van Dijk et al. 2013; Linehan 2015a). There is now a growing interest in applying DBT-ST to non-clinical populations, with innovations developing across the globe. Recently, Linehan has supported the integration of DBT skills as a Social Emotional Learning (SEL) curriculum based on the four principal modules of DBT skills taught in schools as a preventative and “life enhancement” approach in the US (Mazza et al. 2016).

Table 4.1: DBT training curriculum (Linehan 2015a)

The skills of acceptance	The skills for change
Core Mindfulness Skills Module: • Goals of core mindfulness • Overview of core mindfulness skills • Wise Mind • Taking hold of your mind ‘What’ skills • Taking hold of your mind ‘How’ skills	ER Skills Module: • Understanding, identifying, labelling • Checking the facts • Opposite action • Problem solving • Accumulating positive emotions (short/long-term) • Building mastery
Distress Tolerance Module: • TIP skills – changing your body chemistry. • Distracting, self-soothing, improving the moment. • Radical acceptance, turning the mind. • Half-smiling and willing hands • Willingness	Interpersonal Effectiveness Module: • Goal, what gets in the way, interference with effectiveness, obtaining objectives. • DEAR MAN – objective effectiveness, difficult current interaction • GIVE – keeping the relationship, ‘how to’ guide to validation, identify validation. • FAST – recovering from invalidation, identify self-validation. • Evaluate options. • Troubleshooting

Given the paucity of evidence-based solutions tailored to address the problems of emotional well-being in the workplace, the DBT-ST programme embedded in a comprehensive curriculum with a growing evidence base for non-clinical populations offers a unique opportunity for early

career midwives (ECMs). The manualised DBT-ST offers an evidence-based framework for implementation (Table 4.1) that may benefit ECMs by developing their ability to manage emotional labour within their role.

The support for this innovation in the profession is partly driven by a recent pilot study in Canada, which conducted an eight-week DBT-ST intervention for student nurses to address their academic stress and the negative impact of clinical practice (Beanlands et al. 2019). Their pre-post-test design found significant statistical improvements for stress, with large effects on mindfulness and self-compassion, moderate effects on resilience, and small effects on well-being (Beanlands et al. 2019). This study marks a positive preliminary step, establishing a precedent for the midwifery profession, including ECMs, to address the management of the complex emotional challenges encountered in clinical practice.

4.4.2. Brief Overview of DBT Skills Modules and Midwifery Practices

Integrating the DBT-ST modules into midwifery could significantly enhance midwives' resilience, emotional intelligence, and coping strategies. Training in these areas can be incorporated into both ongoing professional development and initial education curricula. By developing these competencies, midwives are equipped with tools not only applicable in direct clinical care but also valuable in managing personal stress and promoting career sustainability. Comprising four distinct modules, DBT-ST provides a structured approach that enables midwives to handle the psychological demands of their profession more effectively, manage stress, and improve communication with clients and colleagues. Ultimately, such training enhances both client care and practitioner well-being. This brief overview highlights the relevance and application of each DBT-ST module in the context of midwifery practice.

4.4.3. Core Mindfulness Skills

The first module of the DBT-ST programme is based on the concept of core mindfulness. It is fundamental and serves as the foundation upon which the skills of distress tolerance, ER, and interpersonal effectiveness are achieved. This core component of DBT is distinct from formal meditative practices found in therapies such as MBSR and MBCT. Linehan (1993) argued the universality of mindfulness practice but conceded that meditation may not be accessible to everyone. She argued that mindfulness does not require traditional meditation practice. Rather, it can be practised in a multitude of environments and contexts because it focuses on the development of awareness, with an emphasis on the context of emotions in relationships and the increase of awareness of sensory cues associated with emotional experiences. This approach is particularly suitable for midwives' hectic schedules.

Midwives are inherently engaged in time-sensitive clinical environments, often with limited opportunities to pause and reflect on their emotional experiences. The literature documenting frequent overtime and the lack of breaks attests to these challenges (RCM 2016b, 2021b). In such settings, goal-oriented practice can obscure aspects of care that influence outcomes. Without awareness of the complexities and demands of their practice, some midwives may lack the emotional insight and skills required to pre-empt problems, instead relying on automatic responses. For example, midwives who engage in surface acting may respond in repetitive and scripted ways. This automated approach can be perceived by some women as inauthentic or invalidating. As a result, these interactions may lead to negative feedback, requests for transfer to another team, or formal complaints. In turn, these outcomes can be experienced as invalidating for midwives, particularly when they are unaware of how their behaviours are perceived during clinical interactions.

Developing mindfulness skills may help midwives shift their focus to moment-to-moment awareness, enabling them to observe, describe, and participate in clinical interactions with greater intentionality and without judgement. For Early Career Midwives (ECMs), core mindfulness skills may support the management of emotional reactivity during high-stress situations, such as clinical emergencies or complex interpersonal exchanges. This may help them remain present and deliver empathic care.

4.4.4. Emotion Regulation Skills

To harness the power that emotions can exert on the self and others, it is necessary to identify each emotion and understand its function (Mayer et al. 2002). This includes recognising the underlying emotions (secondary emotions) that drive primary emotional responses and related behaviours. For example, fear can produce unintended behaviours such as avoidance. Midwives who have experienced adverse events or who lack confidence may become fearful and, consequently, may try to avoid particular settings (e.g. the labour ward) or engage in defensive practices that undermine physiological processes. These behaviours may not arise from an imminent clinical risk but rather from a desire to avoid the possibility of future risk. Although these strategies may serve as short-term solutions, they can have long-term consequences. The question is whether such behaviours are emotionally sustainable.

The value of becoming aware of emotional responses lies in restoring a sense of choice, rather than allowing emotion-driven behaviour to dictate practice. Being controlled by emotions without awareness or the skills to address them essentially limits autonomy. ER training may help midwives manage fear or frustration, especially following exposure to adverse events or

strained relationships with colleagues or women in their care. Such training reduces the likelihood of maladaptive coping behaviours, such as avoidance or emotional suppression.

4.4.5. Interpersonal Effectiveness Skills

Interpersonal effectiveness in DBT consists of the ability to manage and maintain relationships while obtaining personal goals and maintaining self-respect (Linehan 2015a). Although similar to the skills of assertiveness and problem solving within relationships, in this approach the emphasis is on the balance between accomplishing interpersonal goals and building alliances without losing self-respect. This means developing awareness and balancing acceptance and change in relationships and requires sensitivity and communication skills. Although many individuals possess reasonably effective interpersonal skills, in some cases or situations this effectiveness can break down and lead to sources of conflict. Interpersonal effectiveness is key to midwifery and essential for both women and their colleagues, as the emotionality of relationships in midwifery needs a greater understanding of this hidden terrain (Hunter 2001; Hunter and Deery 2005).

Effective interpersonal relationships are the cornerstone for a sense of self and fulfilment (Linehan 1993). However, successful relationships require ER and awareness (Linehan 1993). Awareness of emotions also implies the ability to be mindful of the present moment within a given context in order to manage exchanges effectively. Although midwives are trained in communication skills to promote advocacy and informed choice for women in their care, they also act as gatekeepers of social care. This dual role can make developing relationships with socially vulnerable women particularly challenging and may lead to inauthentic expressions on the part of the midwife. Arnold et al. (2024) remind us that “Displaying emotions congruent with the needs of everyone is an inherent part of professionalism for healthcare providers” (p.135). When a midwife advocates for women in her role of being *‘with woman’*, she may have no alternative but to surface act in certain circumstances, taking on the emotional burden herself to preserve the relationship (Grandey 2000; Hunter 2001).

However, this coping strategy, as shown in the literature, can be damaging to the midwife over time (Hochschild 2006). A midwife who is unaware of this dynamic may blur the boundaries between personal and professional judgement when advocating for women’s choices. This can risk invalidating a woman’s experience and weakening the therapeutic alliance, ultimately leading the midwife to increase her emotional labour through inauthentic expressions (surface or deep acting). Over time, this increased emotional labour can detrimentally affect the midwife’s well-being.

Interpersonal skills focus on effectively managing dialectical tensions within relationships, with validation being a key component of fostering interpersonal effectiveness. According to Carson-Wong et al. (2018), validation is integral to the client/therapist dynamic, while emotional validation, in particular, enhances understanding and strengthens relational exchanges. Linehan (1997) emphasised that empathy alone is insufficient, stating that “validation has nothing to do with social desirability and is not a synonym for praise” (p.358).

This highlights the complexity of empathic understanding and communication strategies in therapeutic relationships and highlights why validation in DBT encompasses six distinct levels to develop and maintain positive exchanges (Rather and Miller 2015; Linehan 2015a). Mastery of validation requires navigating the nuances between sympathy, empathy, pity, and compassion, as conflating these concepts can undermine its effectiveness (Rather and Miller 2015). Reciprocal invalidation, in particular, often leads to emotional distress, making validation a cornerstone skill in DBT. Rooted in Rogerian principles, DBT considers validation as an expression of “unconditional positive regard” (Rogers 1957, p.829), where individuals are accepted non-judgmentally, without the imposition of personal values, thereby affirming their experiences as they are.

Bolger et al. (1989) found that interpersonal conflicts provoked the most distress of all daily events. Midwives place great importance on relationships with women as an integral aspect of their holistic approach to clinical care. However, research findings indicate that working relationships with colleagues can at times be a source of distress (see Section 3.6.5). These conflicts are perpetuated by a workplace culture characterised by fear and blame, compounded by limited resources (Catling and Rossiter 2020). While therapeutic relationships with childbearing women are often deeply personal and enduring, collegial relationships within clinical settings tend to be more transient and task focused. These interactions can occur within hierarchical, multidisciplinary, or peer-based dynamics. Although effective communication is a critical skill for midwives, evidence suggests that these abilities often diminish in collegial settings, particularly in the absence of the woman-centred focus that typically defines midwifery care.

The literature suggests that the complexities of collegial interactions extend beyond advocacy (Geue 2018). Effective communication in these circumstances requires a full spectrum of skills that go beyond the basics, addressing the nuances of social exchange, including bonding and leader-member dynamics. These interactions are often characterised by dialectical tensions, where competing needs and perspectives must be balanced and managed effectively. Social

exchange theory posits that the major force in interpersonal relationships is the satisfaction of both parties' self-interests (Cropanzano and Mitchell 2005). However, power dynamics in hierarchical exchanges are often versed with dialectical tensions. According to DBT theory, managing these tensions requires distress tolerance skills to manage emotions that lead to urges, cognitions, physiological sensations, and behaviours in response to emotional triggers (Feigenbaum 2019). Linehan (2015a) argued that the transaction between emotional vulnerability and invalidating environments was the basis for DBT skills development for individuals.

Midwifery literature highlights a range of challenges often described as constituting an invalidating work environment. A perceived lack of support from managers or shift leaders, restricted autonomy within multidisciplinary teams, and collegial incivility can contribute to emotional dysregulation amongst midwives. This may manifest as difficulties in managing anger, frustration, and fear (Catling et al. 2017; Capper et al. 2020). Interpersonal conflicts may lead to maladaptive coping behaviours, with some midwives becoming overly apologetic while others resort to bullying. Both behaviours are likely rooted in efforts to maintain self-respect in a challenging environment. Additionally, a lack of problem-solving skills may exacerbate deficits in personal awareness and judgement, further complicating professional relationships.

DBT interpersonal effectiveness skills are geared to develop a holistic approach to intra and interpersonal relationships, underpinned by mindfulness, ER and distress tolerance skills. These skills coalesce in real time to navigate dyadic interchanges and make informed choices for effective responses. Emotional labour can aid midwife-woman exchanges in the short term, but empirical evidence shows this approach leads to burnout in the long term (Zapf 2002; Cropanzano and Mitchell 2005; Grandey and Sayre 2019). In contrast, DBT skills, in conjunction with interpersonal effectiveness goals, aim to maintain self-respect and build strong and healthy relationships. This is what researchers have highlighted as benefiting ECMs (Cull et al. 2020).

For ECMs, a lack of communication skills has been correlated with levels of low self-confidence and helplessness (Özdemir and Kaya 2013). These deficits can generate fear, engender feelings of stigmatisation, and can, in some instances, inhibit disclosure, which creates a risk to health and safety in practice. However, dyadic social interactions within the context of hierarchical relationships affect social group identity and power dynamics. Hierarchical interpersonal relationships are based on power inequalities (Brink and Steffen 2007). Power relations within the variable of hierarchy and group identity bring inherent interpersonal conflicts unless they are aimed solely at conformity (Hays and Goldstein 2015). However, midwives are trained to be

independent and autonomous practitioners, which adds an additional variable to the dyadic interpersonal exchange. Finding one's place in the multidisciplinary arena has been found to lead to difficulties for ECMs who enter with the concept of autonomy, only to find themselves vulnerable to a power culture (Parry et al. 2024).

Without an awareness and understanding of interpersonal dynamics, ECMs can become vulnerable to negative power exchanges. The most obvious forms of interpersonal conflicts in midwifery are interpersonal violence, bullying, and coercion, particularly found amongst students and ECMs (Stoll et al. 2018; Capper et al. 2020; Simpson et al. 2022). Workplace incivility is a persistent problem in midwifery that has detrimental effects on victims whether they manage to stay or leave the profession (Ball et al. 2003; Catling et al. 2017; Catling and Rossiter 2020). The recommendation for junior staff and students is to gain expertise in conflict resolution strategies before registration by incorporating these strategies into midwifery education (Simpson et al. 2023). The Start Treating Others Positively (STOP) model originated in 1989 and was introduced to healthcare settings in the United Kingdom in 2001 and midwifery in 2010 (Steen 2011) as a problem-based approach for conflict resolution. Organisations continue their attempts to curtail these chronic phenomena. Yet, to date, there remains limited evidence-based interventions, with the few studies conducted showing only small effects (see Gillen et al. 2017). The midwifery profession, including student midwives, continues to grapple with the negative consequences of their poor interpersonal relationships. Without training and education in these areas, ECMs are more likely to either endure or adopt problematic social exchange patterns in workplace relationships, as highlighted in the literature.

4.4.6. Distress Tolerance Skills

Distress tolerance was conceptualised by Linehan (2015a) as the ability to manage emotional adverse events without being overwhelmed in both the short and long term. Distress tolerance abilities are supported by short-term coping strategies that help manage emotional distress to avoid engaging and developing maladaptive behaviours that risk maintaining or increasing emotional pain. Distress tolerance skills aim to develop and improve foundational knowledge of biological mechanisms initiated during stress-inducing events to understand which DBT skills to initiate and at what moment within the cycle of distress (Linehan 2015a). These immediate skills are under the heading of crisis survival and encompass sets of cognitive and behavioural strategies.

Adverse events are inherent to clinical practice, characterised by their frequency and profound impact on everyone involved, often resulting in enduring psychological morbidity for both

women and healthcare professionals. The literature on the '*second victim*' phenomenon (witnessing traumatic events) attests to a significant psychological burden on healthcare professionals (Leinweber and Rowe 2010; Beck et al. 2015). Adverse events in midwifery encompass a spectrum ranging from maternal and neonatal fatalities, traumatic deliveries, and suspicion of negligence to instances of bullying. In this context, midwives and other healthcare professionals are vulnerable to becoming emotionally overwhelmed, leading some to experience suicidal ideation and suicide (García-Iglesias et al. 2022). Although the mental health and psychological profiles of midwives remain unexplored, the profession exhibits high attrition rates, which may in part be attributed to the behavioural consequences arising from these psychological morbidities.

Nevertheless, research on second victims highlights the traumatic and emotionally painful consequences that midwives must contend with and manage. Despite these significant challenges, there are noticeable gaps in the literature in reference to taught coping strategies and skills for distress tolerance in preregistration midwifery education or in the practice-based setting. Researchers and scholars recommend developing problem-focused strategies to support midwives with the consequences of workplace adversity, but without specificity as to exact skills. While emotional literacy through ER or interpersonal skills can improve relationships, tolerance to distress requires a more complex understanding of emotions and physiological interactions (Linehan 2015a).

Midwifery researchers recognise the high levels of distress and stress endured by midwives and the consequent need for effective coping strategies (Mander 2001; Kenworthy and Kirkman 2011; Crowther et al. 2016). Nevertheless, emotional discomfort in clinical practice is often misinterpreted as a lack of confidence in midwifery skills. This has led to remedial approaches primarily focused on enhancing these skills to improve confidence. However, reviews by Oates et al. (2019) and Pezaro (2016) suggest that perceived deficiency in clinical confidence that led to negative experiences in both students and midwives is attributed to a lack of resilience. However, the concept of resilience has not been fully conceptualised nor has it been fully explored in the profession. For example, basic psychological first aid (PFA) was evaluated by the World Health Organization (WHO) in 2009, recommending its administration to individuals recently exposed to a traumatic event (WHO 2011). It was after COVID-19 that PFA became the subject of research evaluation and promotion in healthcare. However, midwifery has not yet considered its value, despite the profession's inherent exposure to and with women who face loss and traumatic events, including the pervasive fear and culpability that ensue.

It is difficult to evaluate the benefits of the PFA model for midwifery due to the dearth of empirical evidence on its efficacy in the healthcare sector. However, since the COVID-19 pandemic, researchers have endeavoured to identify strategies to aid frontline workers. Said et al.'s (2022) PFA-based study found an increase in psychological preparedness in nurses who completed a 9-hour PFA training programme in comparison to controls. Conversely, despite PFA's widespread availability, low uptake of the training has been a continuing challenge (Schoultz et al. 2022). Although PFA purports to address short and long-term distress, it has been conceptualised as a universally applicable approach by all healthcare staff regardless of qualifications. PFA is essentially geared to address the distress of others in compliance with its five essential elements: 1) a sense of safety, 2) calming, 3) a sense of self- and community efficacy, 4) connectedness, and 5) hope (Shultz and Forbes 2014). Therefore, PFA is not considered in terms of therapeutics or counselling (Schoultz et al. 2022).

In contrast to PFA, the DBT Distress Tolerance Skills module is not a standalone approach geared solely towards others' well-being. Instead, its aims and objectives are linked to a comprehensive approach. This approach is designed to underpin each of its skill sets to support personal well-being. With mastery, distress tolerance skills become clinically transferable, particularly the crisis survival knowledge and skills for managing high emotional arousal states in others. Distress tolerance skills are aimed at increasing cognitive and behavioural knowledge of how to manage short-term crises, set within a comprehensive curriculum supported by determinant skills and knowledge, primarily for the individual (Linehan 2015a). Therefore, gaining skill mastery is the starting point.

Thereafter, these mastered skills can promote the ability to render short-term aid to others within a crisis setting and to manage physiological arousal techniques. A holistic approach to caring for women and their families within labour and/or adverse events, alongside the ability to render guidance and support in the management of emotional well-being, is recognised as an integral aspect of midwifery. DBT crisis survival (distress tolerance skills), once mastered, can increase the toolkit of midwives in short-term crisis events in the interim and in conjunction with referral policies and protocols. Teaching distress tolerance could provide midwives with immediate crisis survival strategies for managing acute emotional distress during critical incidents and mitigating the risk of longer-term psychological impacts, such as burnout.

Unlike CBT's primarily disorder-specific focus and PFA's short-term crisis approach, DBT-ST provides a comprehensive framework that integrates mindfulness, interpersonal effectiveness,

and distress tolerance to build long-term resilience. This makes it particularly adaptable to the sustained emotional challenges of midwifery practice.

4.5. Critique of DBT-ST as an Intervention

DBT-ST has emerged as a cornerstone intervention within the broader DBT framework, specifically designed to equip individuals with essential skills for managing intense emotions, improving interpersonal relationships, and enhancing overall psychological resilience. Thus far, the strengths of DBT-ST are well documented, and reviews have considered its benefits and outcomes (Valentine et al. 2015, 2020; Delaquis et al. 2022; Warner and Murphy 2022; Felix and Sand 2023). More recently, researchers have implemented this therapeutic approach as a preventative, resilience-building intervention for non-clinical populations, including caregivers, parents, children, adolescents, nurses, and college students. To date, evidence of its preliminary effectiveness continues to grow.

While DBT-ST has demonstrated its value as a standalone intervention, the potential for applying it to a new non-clinical population, such as ECMs, necessitates a critical analysis of its merits in conjunction with other well-being interventions. This analysis will examine its methodological approaches, empirical evidence, implementation, and participant-centred outcomes (major theoretical analysis is discussed in Chapter 5). By exploring both the strengths and weaknesses of DBT-ST within the context of competing alternative approaches, this critique seeks to clarify its effectiveness and applicability. Additionally, it highlights areas for future research and development to enhance the programme's accessibility, cultural sensitivity, and overall impact on diverse populations such as midwives.

Conceptual frameworks of psychological interventions are a key factor when considering how differing perspectives shape the strategies and outcomes of treatments for the challenges to emotional well-being. Psychologically based interventions have been conceptualised for addressing psychological deficits that are disorder-specific, and others have taken a broader transdiagnostic perspective.

Psychologically based interventions are designed to address specific emotional and cognitive challenges, with their effectiveness often dependent on the methods of application employed. These varying approaches significantly influence how the interventions are operationalised and, consequently, their scope of applicability. It is important to recognise that not every psychologically informed intervention can be feasibly applied across different contexts or

populations. The methodological differences dictate not only the operational aspects but also the extent to which these interventions can meet the diverse needs of various groups.

Based on the work of Harvey et al. (2004), Sauer-Zavala et al. (2017) described a portfolio of transdiagnostic cognitive processes as comprising three approaches: universal or unified, modular, and shared mechanisms. The universal/unified approach operates as a one-size-fits-all strategy. It represents a top-down method that is applicable across the well-being continuum, aiming to address or reduce psychopathological disorders by addressing shared underlying mechanisms.

According to Sauer-Zavala and colleagues, the modular approach allows for sets of evidence-based units or modules to be operationalised independently and delivered flexibly, aiming to tailor to the needs of a client or group. An example of this approach is DBT-ST. This modular approach enhances flexibility, allowing the programme to be tailored to the specific needs of different populations, such as ECMs.

Conversely, the shared mechanism approach resembles a bottom-up or problem-specific treatment approach. It identifies underlying processes that maintain multiple symptoms and disorders, creating interventions designed to address specific problems. This approach to treatment demands a wide-ranging and in-depth knowledge base for practitioners, with lengthy and costly training as a prerequisite. Conversely, universal/unified transdiagnostic approaches are advantageous because their comprehensive frameworks can be manualised to enable training as a specialised subject and area of treatment knowledge.

In summary, DBT-ST's transdiagnostic, modular framework offers a flexible and evidence-based approach to addressing emotional regulation and interpersonal challenges. Compared to other interventions discussed below, DBT-ST's emphasis on skill acquisition and its adaptability make it particularly promising for supporting midwives' emotional well-being. However, practical considerations, including facilitator expertise, time constraints, and participant engagement, must be carefully addressed to ensure its successful implementation.

4.5.1. Disorder-specific Approaches: Case Study of CBT

Many psychosocial interventions are disorder-specific treatments or interventions. For example, CBT uses specific psychological frameworks tailored to individual disorders such as depression or anxiety. CBT focuses its treatment on specific symptomatic concerns and incorporates skill development, such as cognitive restructuring, to manage and treat conditions. However, CBT is primarily focused on addressing the specific symptoms and underlying mechanisms of

psychological disorders (Beck and Dozois 2011). After defining the problem through case formulation, therapists may integrate other skills within a broader therapeutic framework that can include exploration of past experiences and cognitive distortions to improve treatment outcomes. Originally, CBT comprised multiple general psychological techniques to address several disorders (cognitive restructuring/reframing, behavioural activation, exposure therapy, relaxation, and stress reduction) (Beck and Dozois 2011). With the advent of evidence-based therapies, Hofmann and Hayes (2019) argued that CBT narrowed its vision and developed disorder-specific protocols.

This is problematic when diagnoses have comorbidities such as attentional biases, recurrent negative thinking, and avoidance behaviour. Scholars of CBT have recognised these challenges and have started to develop transdiagnostic treatments such as Transdiagnostic CBT for eating disorders and Transdiagnostic Group CBT for anxiety (Norton and Barrera 2012). There are now both transdiagnostic and diagnosis-specific CBT interventions.

Although CBT is the most widely researched and empirically supported psychotherapeutic method in the literature, recent transdiagnostic/process-based approaches (Mansell and Carey 2009) that feature within the rubric of universal/unified psychoeducational interventions are developing their evidence base. There are also newer CBT-infused programmes such as FRIENDS (preventing anxiety and boosting resilience for school children), Creating Opportunities for Personal Empowerment (COPE) (depression, anxiety, and stress for adolescents and young adults), and Stress Control (teaches skills to manage stress). There are also online programmes such as Beating the Blues (depression and anxiety for adults) and SilverCloud (manage stress, anxiety, and depression) widely applied in CBT waiting lists and offered in university settings. Preliminary findings for SilverCloud have shown that, while this intervention alone did not improve well-being factors, combining it with therapist treatment led to significant improvements (Bartholmae et al. 2023). A recent meta-analysis by Fisak et al. (2023) reported that FRIENDS significantly reduced anxiety and depression in children and adolescents. These developments highlight the evolving landscape of CBT, where traditional approaches are supplemented by transdiagnostic and process-based methods, as well as by innovative, technology-driven interventions. The growing evidence base for these newer programmes, such as FRIENDS and SilverCloud, highlights their potential to enhance mental health outcomes across diverse populations and settings.

4.5.2. Transdiagnostic Approaches

Conversely, DBT-ST applies a transdiagnostic treatment model suitable for a broad spectrum of needs and/or diagnoses (Linehan 2015a). This approach is a skill-based intervention that aims to develop self-efficacy through mastery of its skills. These skills function as a toolkit of strategies that can be applied to various situations. DBT-ST is rooted in the concept of cognitive-change processes and treatment approaches and is applied in one-to-one, group, and educational settings. Its underlying mechanism is ER and dysregulation (Neacsiu et al. 2014). ER refers to the ability to manage emotions effectively (Gross and Thompson 2007). In contrast, emotional dysregulation is characterised by a lack of adaptive skills or the use of maladaptive coping strategies that can make it difficult to moderate emotional responses during stressful events (Kring and Sloan 2010).

DBT-ST consists of four modules and has a universal approach to skill deficits, i.e. it can be modularly adapted to different specificities in targeted populations. This allows DBT-ST interventions to be considered as a modular approach to transdiagnostic cognitive processes (Sauer-Zavala et al. 2017). However, systematic reviews and meta-analyses of DBT-ST studies consistently encounter a key challenge: substantial methodological heterogeneity across studies driven by their focus on specific DBT skill modules (Valentine et al. 2020). Heterogeneity in DBT-ST studies arises from differences in the selection of modules, facilitators' training, session duration, and participant characteristics. Although challenging for researchers, this also highlights that DBT-ST is a theory-driven framework that offers flexibility to address specific targets within interventions.

Other transdiagnostic approaches such as mindfulness-based interventions (MBI) and psychodynamic interventions are also transdiagnostic, as they do not focus on a specific disorder. Mindfulness incorporates mindful awareness that benefits multiple constructs such as relaxation, acceptance, non-judgement, and other self-management behaviours. However, mindfulness interventions do not target the root causes of the conditions they address. Instead, these strategies focus on promoting adaptive coping across a wide range of difficulties, which contributes to their documented success (Schuman-Olivier et al. 2020).

Adaptive coping is a fundamental aim of all psychological interventions. Therefore, the differentiating factor between other approaches and mindfulness is its strategy of fostering awareness for adaptive coping, enabled through meditative skills. However, researchers have identified limitations with MBIs that rely on meditation strategies. Meditation can trigger unwanted effects such as intrusive thoughts, psychosis, and depersonalisation in participants

with underlying or undiagnosed disorders (Baer et al. 2019). Importantly, psychotherapeutic approaches can also cause negative effects during the therapy process. DBT-ST, which focuses on skill acquisition, differs in that it does not address the underlying causes of psychological issues.

Mindfulness is also a core component of DBT-ST, and while the skills overlap with those taught in mindfulness-based stress reduction (MBSR), the delivery format differs significantly. MBSR prescribes a set amount of meditative practice. In contrast, DBT-ST encourages mindfulness during everyday activities, such as showering, washing dishes, or exercising. This approach enables individuals to benefit from mindfulness training regardless of the severity of their distress or willingness to engage in formal meditation. Notably, acceptance and commitment therapy (ACT), which is also classified under broader mindfulness-based interventions, similarly does not require compulsory meditation (Hayes et al. 1999).

ACT is another transdiagnostic treatment that aims to develop awareness and commitment to support behavioural change in the general population. It includes strategies such as cognitive defusion, acceptance, present-moment awareness, and the pursuit of valued life goals, even in the presence of negative emotions or physical pain (Hayes et al. 1999). Grounded in behavioural analytic principles, ACT emphasises psychological processes and competencies by cultivating the ability to observe internal experiences without attachment or attempts to alter them (Hayes et al. 1999). A growing evidence base supports its efficacy. In a systematic review of meta-analyses, Gloster et al. (2020) concluded that ACT is effective for a range of conditions, including anxiety, depression, substance use, and chronic pain, and is generally more effective than control conditions.

Although they found small to medium effect sizes for quality of life, well-being, functioning, and disability, they reported small to large effect sizes for psychological flexibility, which is a core theoretical construct of ACT. Notably, one of the meta-analyses under review found no statistically significant effect for burnout in seven studies with mental health professionals (Reeve et al. 2018). This may highlight that strategies employed in ACT interventions may not adequately target the characteristics of burnout. However, the quality of the studies and the specificity of this population may need further research.

4.5.3. Differences Between Psychological Perspectives

When comparing psychological approaches, the perspective they adopt influences the strategies they employ. For example, ACT is centred on acceptance and commitment to personal values, whereas CBT focuses on changing dysfunctional cognitions and behaviours (Beck 2011). This emphasis on change makes CBT distinct, with change being its central goal. In contrast, DBT-ST

integrates both acceptance and change (Linehan 1993). This dual focus sets DBT-ST apart from CBT, which is exclusively focused on cognitive and behavioural modifications, and mindfulness strategies such as those developed by Kabat-Zinn (2005), which emphasise acceptance without necessarily promoting change.

A recent systematic review and meta-analysis comparing MBIs and CBT across 45 studies found no significant difference in treatment outcomes for anxiety and depression between these approaches (Li et al. 2023). This finding suggests that both MBIs and CBT are equally effective in treating these conditions. Additionally, a recent umbrella analysis conducted by Saccaro et al. (2024) reported that various interventions, including CBT, DBT, ACT, and Mindfulness-Based Cognitive Therapy (MBCT), led to improvements in ER across multiple populations, including non-clinical groups. However, the analysis concluded that DBT and CBT were the most effective interventions for enhancing ER.

Despite the overlap amongst these approaches (MBIs, ACT, CBT), DBT-ST has the merit of addressing ER or dysregulation deficits specifically through its skills-based approach. For instance, cognitive flexibility taught in ACT enhances ER, but individuals who possess ER skills are more able to reduce the impact and effects of emotions from others (Eisenberg and Fabes 1992).

4.5.4. Universal DBT-ST

Universal application of DBT-ST programmes to non-clinical populations is a new development in recent years. However, research on this new development is less extensive than studies focused on clinical populations. Non-clinical populations, such as students, educators, nurses, corporate employees, and community members, have been subjects in some studies exploring the effectiveness of DBT skills in enhancing emotional regulation, stress management, and interpersonal effectiveness. The general aim of these interventions is centred on resilience enhancement to equip individuals with relevant skills to deal with adjustment challenges to adverse environments.

So far, researchers have conducted only one pilot study with nursing health professionals. Beanlands et al. (2019) conducted a mixed-method eight-week modified DBT-ST intervention with multiple groups of student nurses without a control group. The overall dropout rate was 16.22%. Of those who completed the intervention, Beanlands and colleagues reported significant reductions in stress and improvements in well-being. Qualitative findings reported participants valued skill use for interpersonal effectiveness, stress management, and ER. However, the content in some modules was overwhelming for some participants. The co-led facilitation of a senior practice nurse created a supportive, trusting, and accepting atmosphere.

Beanlands et al.'s (2019) study highlights a critical foundation for applying DBT-ST to midwifery. Although the study targeted nursing students, the emotional and professional challenges identified, such as stress management, interpersonal effectiveness, and ER, mirror those faced by midwives and ECMs. ECMs experience significant emotional labour, coupled with role stress and workplace adversity, particularly during the transition from pre-registration training to autonomous practice (Cull et al. 2020).

Notably, Beanlands et al. (2019) demonstrated that co-facilitation by a senior practice nurse was instrumental in creating a supportive and trusting environment. This finding highlights the importance of adapting DBT-ST for midwifery through culturally relevant facilitation, where experienced midwifery educators or practice supervisors co-lead the intervention alongside DBT-trained facilitators. Such an approach would ensure the content is delivered with sensitivity to the complexities of midwifery practice, fostering participant engagement and contextual relevance.

Beanlands et al. (2021) reported qualitative outcomes as a follow-up to their 2019 pilot study. These outcomes identified the acceptability of skill use in stress management, ER, and interpersonal effectiveness, which align directly with midwifery's core challenges. Specifically, the skills learned could support ECMs in managing relationships with women, navigating interdisciplinary dynamics, and coping with the emotional intensity of clinical practice. These findings open the possibility of DBT-ST as a tailored intervention that addresses ECMs' unique emotional and relational needs while improving professional resilience and retention.

In addition to nurses, research has also highlighted teachers who, like midwives, experience high levels of occupational stress and burnout, making them a valuable comparison group for exploring the applicability of DBT-ST to non-clinical populations. Recent studies have shown that DBT-ST can improve specific aspects of coping and ER in teachers (Justo et al. 2018; Shernoff et al. 2022; Keng et al. 2024). For example, Keng et al. (2024) assessed the effects of a five-week session intervention and found that DBT-ST reduced teachers' burnout and improved dysfunctional coping and skill use compared to a control group. However, there were no between-condition differences in changes for depression, anxiety, stress, social-emotional competencies, personal burnout, or work-related burnout.

Teachers improved their maladaptive coping by decreases in the use of maladaptive coping strategies and increases in the use of DBT skills. Moreover, Justo et al. (2018) completed eleven DBT-ST groups with 55 teachers facilitated by DBT-certified senior trainers. The training intervention consisted of four three-hour sessions with 38 teachers who completed the training

and 27 attended the qualitative follow-up session. They did not include the distress tolerance module. Their results showed statistical improvements in the Difficulties in Emotion Regulation Scale (DERS) subscales of goal-directed behaviours and emotional awareness.

These findings demonstrate that DBT-ST can address targeted emotional competencies but suggest limitations in its broader psychological effects when adapted for non-clinical populations. This aligns with the need to tailor DBT-ST to the specific stressors and emotional demands of midwifery practice to maximise its impact. Researchers have also applied DBT-ST to college students to manage anxiety and stress, and to improve academic efficiency and mental well-being. Muhomba et al. (2017) conducted a 7-to-12-week programme focusing on DBT-ST mindfulness and distress tolerance modules with multiple groups of a total of 42 students. However, only 22 finished the programme and completed the post-test repeated measures. Nevertheless, researchers found that the students who completed the programme significantly reduced their difficulties with ER and dysfunctional behaviour. However, the dropout rates were problematic, though not discussed by the authors.

Conversely, Lee and Arora (2023) applied a shorter four-week DBT-informed intervention to college students with mental health diagnoses to increase psychological resilience. The intervention did not include coaching or telephone support. However, the sessions were facilitated by trained therapists and co-facilitators. Participants received 1.5-hour sessions per week of skills training and discussion. The authors reported participants revealed significant increases in psychological resilience and mindfulness, and significant decreases in emotion dysregulation. This study shows that the duration of DBT-ST interventions can be effective even in less than seven weeks.

Research highlights that DBT-ST is a pivotal component in fostering effective skill usage, surpassing the outcomes of other therapeutic approaches. Uliaszek et al. (2016) conducted a randomised controlled trial with 54 college students experiencing various mental health difficulties, involving a 12-week intervention consisting of two-hour DBT sessions that incorporated DBT-ST. They compared this group with a 12-week positive psychology treatment (PPT) group, reporting higher dropout rates for the PPT group compared to the DBT group. Those who completed treatments in both groups showed significant improvements in most measures at the post-test. However, the DBT group showed a significant increase in skill usage. Linehan (2015a) argued that skill acquisition and usage are a sustaining factor in the maintenance of well-being improvements.

These studies with non-clinical groups highlight the versatility and applicability of DBT-ST for populations facing high emotional and occupational stress, such as midwives. The parallels between midwifery and other non-clinical groups, including nurses, teachers, and students, are compelling. Both teachers and midwives experience intense relational demands, emotional labour, and burnout in challenging environments, highlighting the relevance of interventions that target ER, interpersonal effectiveness, and stress management. Findings from Beanlands et al. (2019) and Keng et al. (2024) suggest that the modular and adaptable nature of DBT-ST enables its tailoring to population-specific challenges while at the same time maintaining its core principles. In midwifery, these adaptations might include integrating real-world clinical scenarios, co-facilitation by midwifery practice supervisors, and shorter intervention formats to accommodate the time and resource constraints within maternity services. By addressing ECMs' emotional vulnerabilities and enhancing their ER abilities, DBT-ST has the potential to mitigate burnout, support professional resilience, and reduce attrition.

However, practical considerations require further understanding to advocate for piloting tailored DBT-ST interventions within midwifery. Practical challenges such as dropout rates and the need for facilitators with specialised DBT-ST training require careful consideration. For example, Beanlands et al. (2019) reported dropout rates linked to the overwhelming content of some modules, emphasising the importance of balanced programme design. Similarly, the lack of DBT-ST-trained facilitators within midwifery raises concerns about the fidelity of implementation and the quality of programme delivery. Addressing these barriers will require exploring collaborative facilitation models, such as co-leading with mental health professionals or adopting virtual formats, as demonstrated by Keng et al. (2024) and Shernoff et al. (2022). By tackling these practical considerations, future piloting of tailored DBT-ST interventions within midwifery could assess their feasibility, acceptability, and long-term impact on emotional well-being and workforce sustainability.

4.5.5. Practical Application and Structure

As discussed above, the DBT-ST programme has a modular design and its structure is comprised of four distinct yet connected subjects (Mindfulness, Distress Tolerance, ER, and Interpersonal Effectiveness), each targeting specific areas of skill deficits (Linehan 1993). This modularity allows flexibility in targeting the needs of certain populations when necessary. The four modules programme allows a comprehensive and systematic approach by providing a clear and consistent framework for both facilitators and participants, which enhances consistency and overall delivery of content through its manualised programme (Linehan 2015a). Furthermore, this

standalone programme can be adapted for either one-to-one or group formats. In a group setting, the DBT-ST programme can foster a greater sense of community and shared learning, which is especially beneficial for individuals feeling isolated during emotional struggles. Conversely, group formats can pose problems for some individuals. Participants with social anxiety sensitivity may struggle in this context, with fear of judgement from their peers leading to avoidance and departure from the programme. Cultural or social dynamics can also exert barriers to learning. Dominating personalities making others feel overshadowed or unimportant for less assertive participants leads to disenfranchisement. Participants dealing with traumatic experiences may feel that the group format is overwhelming. Finally, some participants may consider that their specific needs are not adequately addressed, leading to frustration or early withdrawal.

4.5.6. Dropout Rates and Participant Retention

Dropout rates from mental health treatments have proved a major ongoing issue across the differing psychological approaches. For standard DBT, it is dependent on the diagnosis involved. Research suggests that the dropout rates in inpatient settings for standard DBT can range from 4.2% to as high as 61.1%, with an average of 32.7% (Kliem et al. 2010; Landes et al. 2016; Dixon and Linardon 2020). Linehan (1993) argued that skill and motivational problems were common in individuals diagnosed with BPD. However, dropout rates across psychologically based treatments have shown averages such as 19.9% (Cooper and Cocklin, 2015) and 27.2% (Bouchard et al. 2022), with similar findings reported by (Windle et al., 2020). Meta-analyses have consistently found that the therapeutic alliance, treatment satisfaction, and motivation were significant factors (Windle et al. 2020; Bouchard et al. 2022). Raman and Richardson (2019) reported that dropout rates are difficult to assess due to limited data on reasons for attrition; however, they suggested that instructors should familiarise themselves with common predictors, and understand underlying factors, assumptions, and retention strategies for engagement.

Dropout rates for clinicians are a notable barrier (Dawson et al. 2021; Edwardson et al. 2018; Teoh et al. 2023), particularly in the context of existing staff shortages. Midwives' exposure to emotional adversity requires interventions that are both time-efficient and immediately applicable to clinical practice. However, participant burden must be considered, particularly when managing multiple professional and personal demands.

This said, standalone DBT-ST programmes have been found to have slightly lower dropout rates (22.5%) when conducted with severe emotional dysregulation and co-occurring disorders (Felix and Sand 2023). The dropout rate for Transdiagnostic DBT-ST is similar to other psychologically

based interventions. Conversely, meta-analyses have reported dropout rates for overall MBIs of 19.1% (Lam et al. 2022). However, other researchers have shown that MBIs have dropout rates of 25% or higher and barriers for non-compliance are not consistently identified across studies (Banerjee et al. 2018; Zhang et al. 2021). For MBIs, the evidence suggests that dropout rates have been attributed to a failure to engage in metacognitive acceptance training (Atkinson and Wade 2012), intrusive thoughts (Baer et al. 2019; 2021), and meditation practice (Lomas et al. 2019). Conversely, ACT trials have reported lower dropout rates of 17.95% (Karekla et al. 2019). Where mindfulness interventions present more complex barriers leading to dropout, ACT attrition was reported to be logistical (Karekla et al. 2019).

Valentine et al. (2020) reported that DBT-ST had lower average dropout rates. However, significant heterogeneity across studies, including variations in module content and clinician training, may affect these findings. These factors can influence participant retention. Both Felix and Sand (2023) and Valentine et al. (2020) found that, in general, the studies reviewed had small sample sizes, lacked rigorous methods of treatments, and a lack of follow-up assessment, which made it difficult to infer valid robust evidence and recommendations. Despite these challenges, the reviews suggest that the modular nature of DBT-ST was a positive factor in reducing dropout rates.

Given midwives' demanding workloads and high emotional labour, adaptations to DBT-ST delivery, such as shorter sessions or online formats, may be necessary to improve accessibility and engagement.

4.5.7. Time and Cost Factors

Time is a critical factor influencing both the effectiveness and the challenges associated with most psychologically based interventions (CBT, ACT, Psychodynamic Therapies, mindfulness, standard DBT). For example, CBT is structured around a relatively brief timeframe, typically 12–16 sessions, allowing for focused skill acquisition without overwhelming participants. However, even within these shorter programmes, time constraints can still pose barriers to deep learning and application, particularly when complex or multifaceted skills are involved (Hofmann et al. 2012; Cuijpers et al. 2013; Cuijpers et al. 2016). In contrast, DBT-ST, while also aiming to equip participants with essential coping skills, often requires a more extended commitment in patients with complex mental health disorders. The time needed to acquire and apply skills in daily life can pose challenges within shortened timeframes.

Despite the limited timeframes of interventions, a systematic review and meta-analysis by Delaquis et al. (2022) reported that DBT-ST was effective in consistent symptom reduction for ER

in individuals with common mental health disorders without co-occurring BPD compared to control. They suggested that DBT-ST's effectiveness in treating common mental health disorders and ER was the mechanism underlying this treatment approach (Delaquis et al. 2022). These findings concur with previous research from Neacsiu et al. (2014) that indicated that the duration of the DBT-ST programme, typically ranging from seven to twelve weeks, can be effective as a transdiagnostic treatment approach.

When considering the costs and time required to address common mental health issues, the perspective adopted in therapeutic interventions can significantly impact these factors. A transdiagnostic perspective, which focuses on common cognitive processes across different disorders, plays a crucial role in shaping treatment approaches. For instance, DBT-ST, when delivered in a group format or as a psychoeducational intervention for prevention and resilience-building, represents a unified (top-down) approach. This approach, alongside its modular foundation, allows for flexibility in addressing various needs. Conversely, the shared mechanism (bottom-up) or problem-specific treatments, such as the Unified Protocol for Transdiagnostic Treatment of Emotional Disorders (Barlow et al. 2017), require practitioners to have extensive, in-depth knowledge. This approach often involves lengthy and costly training as a prerequisite, making it more resource intensive. Universal/unified transdiagnostic approaches are advantageous because of their comprehensive frameworks and manuals that enable practitioners to have specialised subject and treatment knowledge. For example, standalone DBT-ST can be facilitated by allied health professionals (social workers, nurses) or mental health-trained individuals in addition to psychiatrists and clinical psychologists. Nevertheless, interventions with differing populations may require additional professionals to facilitate (bridge) the content to specific populations, which increases costs.

Protocol-driven, diagnosis-specific approaches like CBT can lead to professional accreditation through the British Association for Behavioural and Cognitive Psychotherapies (BABCP). This allows mental health nurses and other professionals to become accredited practitioners without needing to train as clinical psychologists. Therefore, universal/unified transdiagnostic or psychoeducational approaches have the value of reducing costs, time, and training.

4.5.8. Homework

A common aim across psychotherapy interventions is to empower individuals or groups to extend and integrate new learning gained during sessions into their daily lives. One such strategy, particularly beneficial for time-limited interventions, is homework. DBT-ST applies this component to support skill development. Homework in psychotherapy is aimed at reinforcing

learning and facilitating the generalisation of skills. Southward et al. (2022) found that increased skill usage was predictive of increased coping amongst individuals with stress and anxiety. DBT skill use, and skill effectiveness were the result of individuals' affective dispositions (Southward et al. 2022). This means that skills were used on days when individuals experienced higher anxiety and stress, whereas on days consisting of low anxiety and stress, skill usage was low. The more skills were used, the more effectiveness was experienced. Conversely, a meta-analysis of CBT for adults with anxiety identified that the remission rate was high post-intervention (Springer et al. 2018). These relapse rates are complex and include multiple factors such as skills generalisation and duration of treatment (Felix and Sand 2023), homework compliance (Kazantzis 2000; Kazantzis et al. 2016), and therapist alliance (Woody and Adessky 2002).

Homework can be considered time-consuming, particularly for participants with competing professional demands. However, this phenomenon is not specific to any single therapy, intervention, or diagnosis (Chapman and Rosenthal 2016). This not only affects participation but also contributes to dropout rates. Ryum et al. (2024) argued that it is the client-therapist dynamic, and skills acquired during sessions that promote participant engagement with homework. Although this was within the context of one-to-one cognitive therapy sessions, it does emphasise the quality of facilitator-participant engagement in well-being interventions. As discussed, the expertise of DBT-ST facilitators and the skilled application of DBT-ST to the specified contexts of individual groups is crucial in the promotion of well-delivered content. This is particularly important for non-clinical professional groups where the expertise of the DBT-ST expert has limited understanding of the complexities involved that instigate poor well-being and challenges to resilience.

4.5.9. Teaching DBT-ST

Teaching or facilitating psychologically driven interventions is a crucial element in the effectiveness of treatment. Essential knowledge is a prerequisite. However, given the constraints of limited resources, training and bridging cultural gaps in the diversity of populations can be challenging. Researchers and developers have explored various strategies to address and overcome these challenges. This exploration is vital in understanding how to effectively deliver and adapt DBT-ST across diverse settings.

Standard DBT requires trainers to possess specific training, clinical experience, and commitment to DBT principles. This includes direct work with clinically diagnosed patients conducted by certified mental health practitioners. However, standalone DBT-ST facilitators do not always need

intensive training leading to certification. Nevertheless, they must complete a specialised programme and have a robust background in mental health.

Research highlights the pivotal role of facilitators in engaging participants and ensuring effective knowledge transfer and retention. Skilled professionals, who are culturally attuned and able to adapt content to the specific needs and stressors of their audiences, are vital (Sekhon et al. 2022). DBT-ST has traditionally been delivered to clinical populations by trained psychologists or mental health professionals within the context of a transdiagnostic approach. In adapting the approach for the wider needs of non-clinical populations, the challenge is to ensure the training is culturally attuned to these new audiences. For example, incorporating midwifery-specific contexts may be necessary to support relevance and engagement.

Teaching strategies significantly influence outcomes in psychoeducational interventions. As DBT-ST interventions are applied to a wider range of populations, researchers have employed various teaching strategies to enhance the delivery and outcomes. New populations bring different cultures and values, which are crucial factors that must be accommodated. For example, in non-clinical settings, DBT-ST is often led by one or two facilitators. Muhomba et al. (2017) and Justo et al. (2018) used single facilitators with clinical DBT training, while Keng et al. (2024) included a more extensive team including psychiatrists and psychologists, emphasising the benefits of co-leaders in creating supportive environments. Beanlands et al. (2019) conducted a pilot with student nurses co-led by two facilitators. The primary facilitator was an advanced-practice mental health nurse with DBT expertise, and the co-facilitator was an advanced-practice senior nurse. This combination was found to be pivotal in creating a nonjudgemental, trusting environment in which participants felt comfortable. The co-facilitator played a key role in fostering mutual understanding of the context-specific challenges faced by the group.

Conversely, in universally applied DBT-ST in schools (DBT STEPS-A), the curriculum developed for general school pupils is delivered by classroom teachers (Tier 1), school counsellors, or psychologists for pupils with identified difficulties, in groups or one-to-one support (Tier 2) (Mazza et al. 2016). A systematic review and meta-analysis reported that teacher-delivered psychosocial interventions in schools were effective in reducing students' internalising outcomes but not for externalising outcomes (Franklin et al. 2017). Mazza et al. (2016) argued that successful implementation of teacher-led psychosocial interventions requires sufficient training and support.

Innovations in teaching methods have also been explored to enhance the effectiveness of DBT training delivery. Dimeff et al. (2011) assessed the efficacy of a 15-week distress tolerance

module delivered via traditional and electronic formats to mental health providers unfamiliar with DBT. The electronic format (e-DBT) proved particularly effective, highlighting the advances of digital media in reducing costs and cognitive load. Since then, digital media applications have expanded in this area. Recently, in Keng et al.'s (2024) intervention, three of the five group leaders completed a six-week course online (DBT-ST PsychWire) before co-leading the intervention. This electronic format, as a teaching tool, merits further research.

These recent research innovations highlight both the promising outcomes and the barriers to implementing DBT-ST within midwifery, particularly the lack of facilitators with the necessary expertise to deliver the intervention effectively. Midwifery educators and clinical practice supervisors lack the foundational knowledge or specialised training required to ensure fidelity to the DBT-ST curriculum, raising concerns about the quality of programme delivery. To address this gap, organisations could adopt a '*train-the-trainer*' model, where a small cohort of midwifery educators or senior midwives undergo DBT-ST facilitator training (Mazza et al. 2016). These trained individuals would then deliver the psychoeducational programme to midwives, ensuring both cultural relevance and contextual sensitivity to the complexities of midwifery practice.

Additionally, collaborative delivery models could be explored, such as co-facilitation with mental health professionals, including advanced-practice nurses or psychologists, as demonstrated in Beanlands et al. (2019). This approach combines midwifery-specific knowledge with DBT-ST expertise, fostering trust, mutual learning, and programme relevance. Alternatively, developing an e-DBT-ST package tailored specifically for midwives, similar to the digital interventions explored by Dimeff et al. (2011), could offer a flexible and accessible solution to overcome logistical challenges, particularly in resource-limited settings. These strategies, when combined, have the potential to enhance the feasibility and sustainability of DBT-ST implementation in midwifery practice.

4.5.10. Virtually Based Interventions

Researchers have recently developed virtually based psychosocial and transdiagnostic approaches to support online educational and therapeutic programmes that exhibit lower attrition rates compared to traditional face-to-face methods. This can significantly impact cost and time factors for both participants and facilitators.

DBT-ST interventions have traditionally been conducted in a face-to-face format. The advent of the COVID-19 pandemic necessitated the transition to virtual modes of delivery from traditional face-to-face formats. This shift aimed to maintain productivity while adhering to social distancing measures. Exploring this transition, Shernoff et al. (2022) reported that their online DBT-ST

intervention was widely accepted by participants, indicating a successful adaptation to the virtual format. Similarly, Keng et al. (2024) conducted three of their five DBT-ST sessions online, contributing to a growing body of evidence that supports the feasibility of virtual sessions.

Further examining the impact of virtual delivery on participant engagement, Drerup et al. (2021) found that dropout or no-show rates in virtual telehealth settings were lower during the pandemic than in pre-pandemic face-to-face appointments. This suggests that the convenience and accessibility of virtual interventions may enhance attendance to therapy. Extending this examination, Shernoff et al. (2022) conducted an eight-week programme consisting of one-hour online sessions that covered all four modules of DBT-ST. The study involved 39 educators divided into eight groups. They reported a significant stress reduction and improved ways of coping. However, it is important to note that there were no observed changes in anxiety and depression levels. They also reported a dropout rate of 15%, which is much lower than other formats of DBT-ST interventions.

Accessibility of online interventions can be a considerable logistic advantage. Abraham et al. (2024) recently conducted an eight-week online DBT-ST group in India. The online format was selected for its ability to be more logistically flexible for hard-to-reach populations. Of the 18 participants enrolled in the programme, six dropped out (33%). Of the 12 remaining participants, DERS, anxiety, and depression scores significantly improved. The qualitative results suggested that participants mostly appreciated their mindfulness skills, while distress tolerance skills were least practised. Overall, participants considered that this process was beneficial.

Expanding the scope of virtually delivered innovations, López-Del-Hoyo et al. (2023) conducted a systematic review of 27 online mental health-promoting interventions aimed at healthcare personnel during the COVID-19 pandemic. The review identified a range of intervention formats, including self-guided web-based programmes, smartphone apps, and text messaging. Notably, twelve interventions were facilitated by psychotherapy professionals. While six self-guided interventions did not report significant reductions in stress, the majority demonstrated positive outcomes, indicating variability in effectiveness across studies. The majority of interventions were self-guided: eighteen were web-based automated programmes, three were smartphone apps, and one involved text message delivery. The remaining twelve were psychotherapy-based interventions (e.g. mindfulness, compassion, acceptance, and mind-body skills), all supported by trained facilitators. The authors concluded that web-based approaches were particularly suitable for healthcare professionals due to their flexibility and adaptability.

In a disorder-specific context, virtual or online innovations have also been explored for their effectiveness. Espie et al. (2012) conducted a trial to evaluate a media-rich, online automated web application with a virtual therapist using 120 chronic insomnia patients. Their six-week, randomised trial compared this virtual CBT against imagery relief therapy as a placebo and standard treatment. Results showed that the CBT application, which included an automated therapist and community forum, effectively improved sleep and daytime function with sustained improvements post-treatment. These results matched those of therapist-delivered CBT and surpassed other online CBT studies at the time. However, a recent meta-analysis indicated that internet-based CBT for insomnia typically achieved medium effect sizes compared to therapist-led treatments (Simon et al. 2023). Notably, the virtual studies included in the comparison did not incorporate a virtual therapist component.

Further innovations have seen the development of a CBT intervention as an online structured digital format (SilverCloud). SilverCloud is a digital programme that consists of twelve modules, each approximately fifty minutes long, which individuals can complete at their own pace. It includes six fifteen-minute reviews conducted online or by telephone with qualified CBT-trained professionals, culminating in a written report. Created during the COVID-19 pandemic, SilverCloud remains current. Bartholomae et al. (2023) reported that the SilverCloud eight-week digital programme did not impact emotionality measures initially but showed significant effects after the full therapy (face-to-face) was completed. Thus, the combination of digital and therapeutic components appears feasible for participants with moderate to severe anxiety and/or depression.

Web-based mindfulness interventions have also shown potential. A meta-analysis by Sevilla-Llewellyn-Jones et al. (2018) reported that it was effective in reducing depression and anxiety, including improved quality of life and functioning across 12 studies. This attests to the versatility of MBIs' ability to be a logistically adaptive approach.

Finally, Dimeff et al.'s (2011) research into digital self-guided DBT-ST web-based, e-learning format modules for mental health professionals is an interesting development that offers further possibilities for imparting knowledge with flexibility. In recent years, this innovation has gained traction with the development of technological advances for self-guided interventions. A recent trial to assess the feasibility and acceptability of a self-guided internet-delivered DBT programme (iDBT) for substance use disorders proved an acceptable alternative approach to reducing acute consumption (Daros et al. 2024). They reported reduced depression, anxiety, suicidal behaviours, emotional dysregulation, and functional disability.

The integration of virtual technology with psychological interventions marks a significant shift in therapy practices, especially highlighted during the COVID-19 pandemic. Studies demonstrate that online approaches, such as DBT-ST, effectively engage participants and reduce dropout rates while offering logistical flexibility, particularly for hard-to-reach populations. However, challenges such as variable engagement and effectiveness in self-guided modules remain and require further research. As digital platforms increasingly become a mainstay in mental health services, they promise scalable, accessible, and cost-effective solutions that cater to diverse needs, potentially transforming therapeutic delivery globally. The flexibility of virtual DBT-ST delivery aligns with the demands of midwifery, offering opportunities for online professional development during non-clinical hours, which could reduce the practical barriers to engagement.

Virtual DBT-ST delivery offers a promising, scalable solution for addressing emotional regulation challenges amongst midwives. While evidence highlights its feasibility and acceptability, further research is needed to optimise participant engagement and evaluate long-term outcomes.

4.5.11. Universally Applied DBT-ST Interventions in Schools

The promotion and prevention of mental health and well-being have been central to educational policies globally, emphasising emotional resilience in students through school-based DBT-ST-infused curricula. These initiatives, supported by feasibility and pilot studies, align with frameworks like Social-Emotional Learning (SEL) and the Collaborative for Academic, Social, and Emotional Learning (CASEL) in the US, focusing on self-awareness, management, and relationship skills. Recent meta-analyses have confirmed the efficacy of these universally based programmes in enhancing SEL skills, dysfunctional behaviour, and reducing distress, particularly when implemented by teachers (Cipriano et al. 2023; 2024). DBT-ST has demonstrated success in educational settings, enhancing emotional regulation and interpersonal skills amongst students. These findings suggest that DBT-ST could be similarly effective in professional education settings, such as midwifery pre-registration programmes.

The introduction of a 33-week DBT STEPS-A programme within the SEL framework marks a significant innovation, aimed at boosting students' emotional awareness, regulation, and interpersonal skills. Educational institutions recently supported this intervention in Ireland, the UK, and Spain. Generally delivered by classroom teachers, the programme is adaptable for more intensive support by mental health-trained school personnel. However, developers suggest that teachers with some mental health experience achieve optimal delivery (Mazza and Dexter-Mazza 2019).

In the US, Chugani et al. (2022) examined the implementation of an adapted DBT STEPS-A programme in a low-income high school. Teachers with an additional co-teacher who underwent a three-day training to teach it in classrooms found it highly acceptable and feasible. However, teachers reported that the condensed 19-lesson format was too rushed, indicating a need for improved lesson planning and additional teacher support. Teachers also found that teaching resources were of limited quality and skill application in real-life settings was lacking.

Similar findings emerged from Ireland, where Flynn et al. (2018) conducted a modified 22-week DBT STEPS-A programme. They noted significant improvements in emotional symptoms and internalising problems amongst adolescents compared to control. However, dysfunctional coping and skill usage did not improve. Challenges included the need for culturally relevant content, improved resources, and ongoing teacher support.

Comparable challenges were observed in the UK, where Hastings et al. (2022) conducted a 15-week feasibility study of the DBT STEPS-A intervention in Wales. Their feedback highlighted a low completion rate of lengthy evaluation questionnaires and a preference for better teaching resources (e.g., PowerPoint). Despite these logistical challenges, the researchers found that DBT skills were well accepted, and participants considered them interesting and helpful. They reported significant improvements in emotion regulation, as measured by the DERS, and in mindfulness-related outcomes on the Child and Adolescent Mindfulness Measure (CAMM), which assesses present-centred awareness and non-judgemental acceptance of internal experiences in children.

Researchers have also applied CBT preventative programmes in a universal format for children and adolescents. A recent review and meta-analysis by Hugh-Jones et al. (2021) identified eight interventions that showed improvements in managing anxiety. Compared to control groups, these studies reported small improvements post-intervention and small, sustained improvements after twelve months. Additionally, four studies demonstrated large to large effect sizes. However, very few studies were teacher-led. Hugh-Jones et al. (2021) found that teacher-led programmes for anxiety produce better outcomes, whereas for depression, programmes led by skilled CBT practitioners showed better outcomes.

These studies collectively illustrate both the potential and the challenges of implementing universal DBT-ST and CBT interventions in school settings. While both approaches have demonstrated effectiveness, DBT-ST has a distinct advantage in that it can be effectively delivered by adequately supported schoolteachers. In contrast, CBT interventions typically require delivery by specialised practitioners, which may limit their scalability in school settings. The evidence

suggests that DBT-ST, with its focus on emotional regulation and interpersonal skills, offers a more practical and accessible approach for schools. However, the success of these programmes depends on the continued development of culturally relevant materials, high-quality resources, and sustainable support for teachers. Further research is needed to refine these interventions and address the logistical challenges identified.

4.6. Conclusion

Emotion regulation abilities and emotional intelligence competencies through holistic training of the DBT Skill curriculum have the potential to address the array of challenges that constitute workplace adversity in midwifery. These skills can equip midwives with the ability to identify and manage their emotions in their context, by improving their emotional literacy, regulation, and both intra and interpersonal effectiveness. The integration of DBT Skills into midwifery practice emerges as a pivotal strategy to address the multifaceted challenges faced by midwives. By providing midwives with tools to better address stress, emotional distress, and interpersonal conflicts, DBT offers a framework for both personal well-being and the potential for enhanced care in clinical practices.

The analysis has highlighted DBT-ST's potential for broad application as a skill-based intervention. While other psychologically based interventions have also demonstrated value and versatility, their evidence base is still under review. Researchers have extensively studied mindfulness-based interventions and acceptance and commitment therapy for their efficacy and applicability; however, they note that the meditative components can create barriers in mindfulness interventions, and dropout rates have not been consistently defined. Conversely, CBT's disorder-led approach aims to change symptoms that maintain disorders and focus on symptom reduction rather than enhancing self-efficacy through the development of skill mastery as a toolkit for navigating environments. Transdiagnostic CBT is a new development, and its evidence is still under review. Conversely, transdiagnostic DBT-ST has been empirically evaluated in mental health populations across multiple settings in recent years, yet its efficacy in non-clinical populations has not been fully established. However, research thus far has shown its potential. Research and meta-analyses have struggled to assess its effectiveness due to methodological heterogeneity amongst studies, but this is not particular to this approach. DBT-ST has a well-defined evidence base, grounded in the empirical evidence derived from its core DBT principles. Like other interventions, DBT-ST faces limitations related to dropout rates, time constraints, and facilitator efficacy. Its strengths lie in being an established, manualised, modular approach that

offers flexibility and ease of applicability across various settings. The effectiveness of DBT-ST as a well-being intervention in non-clinical populations continues to be evaluated by research.

4.7. Summary

Having established the rationale for DBT-ST as a psychoeducational intervention to support emotion regulation in midwifery, the next chapter presents the theoretical framework that underpins this study. Chapter 5 outlines the conceptual foundations of the research, drawing on theories of emotion regulation, emotional labour, resilience, and emotional intelligence to situate the intervention within a broader understanding of psychological well-being in the midwifery context.

Chapter 5. Theoretical Framework

5.1. Chapter Overview

This chapter addresses the theories that underpin the forthcoming investigation which will help to inform the analyses and outcomes of the research. The chapter begins with the context and purpose of the research. This is followed by the main assumptions and approach to the phenomenon of well-being. The key theories and models of dialectical behaviour therapy (DBT), emotional regulation, stress and vulnerability, emotional intelligence, emotional labour, and resilience are discussed in turn. The major concepts and models are assembled and presented in a working model diagram to explain their action and relevance to the overarching problems of well-being. Limitations of their application are considered in the context of the practice setting.

5.2. Introduction

The literature review has highlighted scholarly recommendations to focus on modifiable risks that mediate and moderate relationships in midwifery (Cramer and Hunter 2019). Several scholars have argued for the development of emotional acuity and literacy to navigate the complex terrain of caring for women in the perinatal period and midwives' professional relationships (Hunter 2004b; Deery and Fisher 2010; Patterson and Begley 2011). These skills, aimed at improving midwives' emotional labour and resilience to workplace adversity, are particularly crucial for early career midwives (ECMs). ECMs are at particular risk of emotional distress (Pezaro et al. 2017), burnout (Fenwick et al. 2018), and job dissatisfaction (Delgado et al. 2020), which cause some to leave the profession within the first five years (Cameron 2011; RCM 2016a; Fenwick et al. 2018; Hunter et al. 2019; Harvie et al. 2019).

The purpose of this research was to identify strategies suitable for moderating and mediating emotional distress responses to professional adversities in ECMs. After assessing the available evidence across the midwifery literature and interrogating evidence-based psychological approaches to well-being, the strategies deemed appropriate were selected. A psychological approach was chosen for its applicability and versatility across a broad range of emotional challenges, reflecting the current midwifery arena. Careful considerations were given to the philosophical approach underpinning the chosen strategies and their compatibility with midwifery.

Therefore, the framework that underpins this research study is built upon the historical changes that have affected the way midwifery is practised in the UK (see Chapter 2) and the scoping review reflecting the challenges that impact their well-being (Chapter 3). The overarching aim of this research was to identify what strategies would improve emotion regulation, well-being, and resilience to workplace adversity. Having identified the broad challenges, a novel approach was taken to improve the well-being of ECMs through the universal application of DBT-ST. The main objectives were to assess the preliminary effectiveness of DBT-ST intervention (see Section 7.1.2 for all objectives).

5.3. Theoretical Assumptions Underpinning the Research

Gross's (1998) theory of emotion regulation is the overarching theory that encompasses the factors under investigation. These factors include the emotionality of care (Hunter 2001), relationships (Hunter 2004a), and emotional distress that emanates from professional practice (emotional labour, burnout, and resilience). Gross's process model of emotion regulation, which aligns with the theory of dialectics in DBT and the model of emotional intelligence, is framed within the underlying concept of how stress influences vulnerability (Zubin and Spring 1977; Linehan 1993; Mayer and Salovey 1997; Gross 1998). Together, these theories provide a comprehensive lens through which to examine the complex interplay of emotions and stress that manifests in the professional lives of midwives.

5.4. Key Theoretical Concepts and Models

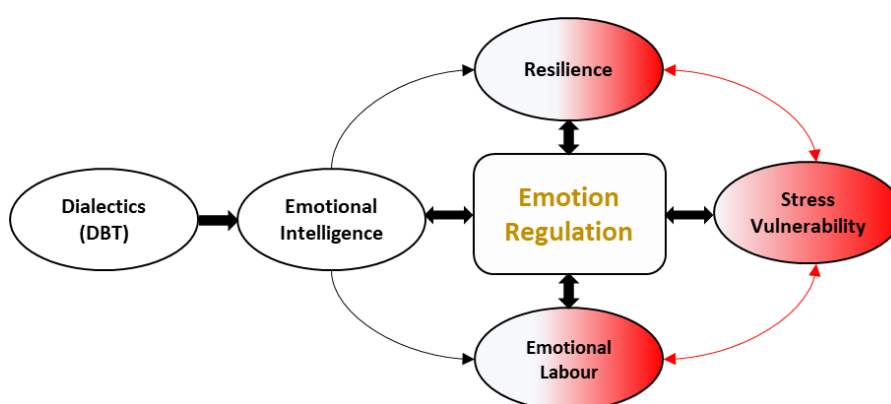


Figure 5.1: Theories and their relationship to Emotion Regulation

Figure 5.1 shows the theories involved in the framework for the research, which centres on the theory of emotion regulation (Gross 1998). This overarching theory is the pivotal theory through which the five additional psychological theories and models interact to influence individual midwives' well-being. Within this framework, the dialectical theory of DBT (Linehan 1993) is the mechanism to improve emotional intelligence. The dialectical theory of DBT and the emotional intelligence model (Mayer et al. 1997) are foundational components that feed into the ability to regulate emotions. The dialectical theory of DBT contributes to the process of understanding and synthesising contradictory emotions, which fosters emotion regulation. Emotional intelligence reinforces the perception, utilisation, understanding, and management of emotions. Furthermore, Figure 5 illustrates that emotion regulation influences resilience, vulnerability to stress, and emotional labour. As the model suggests, poor emotional regulation negatively affects these factors. The model also explains how theories and models interact within the framework. This forms a comprehensive understanding of how the multifaceted model influences the nature of emotional processes and their significance in the research context.

The following will offer a brief, but foundational understanding of each theory involved in the framework and its relation to midwifery challenges.

5.4.1. Dialectical Theory and DBT

The framework begins with DBT's dialectical theory as the main mechanism for change and acceptance of the emotional challenges of midwives. DBT is based on the fundamental worldview of dialectics, which considers '*acceptance and change*' as crucial factors to the synthesis of opposites. DBT's theoretical underpinning is based upon its three leading principles (Linehan 1993). First, the principle of interrelatedness and wholeness is conceptualised as systems of reality in dialectics. This means that relationships do not exist in a vacuum, they are interrelated and dependent on each other. Relationship interaction leads relationships to evolve. Secondly, the principle of polarity explains that reality is not fixed but made up of opposing forces. Truth is relative to the beholder, and reality is infinite. The third principle is the principle of continuous change. Reality is in continuous flux and therefore negotiated through synthesis.

These three principles explain the dialectical approach to the nature of reality and human behaviour (Linehan 1993). Furthermore, as DBT was originally established to address complex mental health problems, it includes a modular and flexible structure. Therefore, it is not based on protocols but rather on the principles of each standalone module to ensure flexibility and adaptability to the problem, which is also recognised within the pragmatism paradigm (see Chapter 7, Section 7.2).

The dialectical worldview and perspective on the nature of reality and behaviour are reflective of the holistic principles of care in midwifery and the centrality of being with woman (Bradfield et al. 2018). It is also compatible with women with less social power, interdependence, and autonomy who are bound to a “network of relationships embedded in an intricate system of social exchanges and obligations” (Lykes 1985, p.362). Therefore, it is unsurprising that there are philosophical congruencies between DBT theory, midwifery, and their inherent complex challenges. DBT’s theoretical foundation focuses on emotion regulation through its dialectical approach to invalidating environments. It equips midwives, at all career stages, with emotional tools, acquired through skill development, to manage their realities.

5.4.2. Process Model of Emotion Regulation

Emotion regulation is the overarching theory. While Grecucci et al. (2020) state that “Deficits in the regulation of emotions have been linked to most, if not all, psychiatric disorders” (p.2), the failure to regulate intra and interpersonal emotions is a universal concern, as the ability to regulate emotions adaptively is essential for well-being. However, it is the skills needed to cope and regulate emotions within stress and chronic adversity that are fundamental aspects of the resilience of well-being. Coping and emotional regulation skills are core to the prevention of ill health and emotional distress, which are supported by transdiagnostic models and universal psychoeducation (Linehan 2015a; Mazza et al. 2016).

The process model of emotion regulation, conceptualised by Gross (1998), is based upon appraisal theory, which considers emotion regulation as a complex cognitive process in which individuals exert deliberate control over the generation, timing, and manifestation of their emotional experiences. According to his conceptualisation, Gross’s (2015) emotion regulation is an ongoing process that occurs under both stressful and non-stressful conditions. Gross (1998) theorised that effective emotion regulation abilities mediate and moderate emotional experiences and their dynamics, speed, intensity, consequences, experiential and physical outcomes. The five strategies in Gross’s comprehensive framework are: 1) situation selection; 2) situation modification; 3) attention deployment; 4) cognitive reappraisal; and 5) response modulation. The first four strategies are categorised as antecedent-focused, and the fifth as response-focused (Gross and John 2003; Ochsner and Gross 2014). This means that emotional responses can be influenced through cognitive reappraisal, either by using an antecedent-focused strategy before an emotional response occurs or by employing response-focused strategies to modify emotional responses after a stressful event. These strategies describe the processes involved in the efforts to manage emotions, including the modification of behavioural

expression of the emotion. However, it is important to clarify that the process of coping and the regulation of emotions are distinct, yet closely related constructs.

Coping was defined by Lazarus and Folkman (1984) as “cognitive and behavioral efforts to master, reduce, or tolerate the internal and/or external demands that are created by the stressful transaction” (p.843). Their Transactional Model of Stress and Coping also fits into the rubric of the appraisal process. “Psychological stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (Lazarus and Folkman 1984, p.19). Their process-oriented definitions of stress and coping, however, do not contain ‘*how to*’ treatments but instead focus on the efforts involved in the responses to stress to manage emotional demand with control, purpose, conscious awareness, and a focus on the goal. Eisenberg and Fabes (1992) argued that coping was a form of emotion regulation under stress, with Skinner and Zimmer-Gembeck (2007) stating that “all strategies of emotion regulation can be considered ways of coping” (p.122). Therefore, both concepts of coping and emotion regulation theories share the process of regulation through purposeful efforts.

Beck and Dozois (2011) expand on Gross’s process model through the development of the Cognitive Emotion Regulation (CER) model, which provides a theoretical foundation for cognitive behavioural psychotherapeutic approaches. While originally rooted in cognitive therapy, now broadly referred to as cognitive behavioural therapy (CBT), the CER model aligns with Gross’s view that emotion regulation involves strategies that can be taught and refined. Therapeutic approaches based on this model include CBT and dialectical behaviour therapy (DBT), both of which use attentional, cognitive, and behavioural techniques to strengthen cognitive control over emotions. In contrast, other interventions such as psychodynamic therapy (Gabbard, 2014), humanistic therapy (Rogers 1951), schema therapy (Young et al. 2003), and emotion-focused therapy (Greenberg 2004) are based on the experiential-dynamic emotion regulation (EDER) model. The EDER framework posits that emotions are evolutionarily prewired and operate with some independence from cognition (Greenberg 2004). Although both the CER and Gross’s process model share a cognitive basis, CBT focuses on cognitive change and reappraisal as mechanisms of improvement, whereas DBT integrates both change and acceptance strategies by incorporating dialectical principles.

5.4.3. Vulnerability-to-Stress Model

Another important consideration is the context of ECMs and their degrees of psychological vulnerability as a generally non-clinical population (see Figure 5.1). This research, which seeks to

apply DBT-ST as a universal psychoeducational intervention, aims to support the well-being of ECMs while acknowledging their specific context and individual variation. Importantly, the approach does not imply the presence of mental illness. The concept of vulnerability holds particular significance in this context, as it includes both transitory and chronic stressors that may contribute to varying levels of susceptibility. As Zubin and Spring (1977) posited, “invulnerability describes the organism’s ultimate resilience to the load imposed on it by life event stressors” (p.114). Their Vulnerability-to-Stress Model (VSM), or diathesis-stress model, is composed of four components: vulnerability (probability), coping efforts (energy), competencies (skills and knowledge), and coping abilities (initiative, skills, and mastery). Zubin and Spring (1977) argued that individuals’ coping abilities and levels of vulnerability are interrelated. For example, episodic failure in coping skills may not affect a low-vulnerability individual but would affect a higher-vulnerability individual. Transitory stressors, such as having a bad day or week, if accumulated over time, can develop into states of vulnerability. This is reflective of the midwifery literature and the challenges staff have been facing (vulnerability in ECMs). However, the accumulation of negative events and low coping skills, even with a lower vulnerability threshold, may increase the risk of distress and have lasting effects. Therefore, Zubin and Spring’s (1977) VSM considers both nature and nurture in the development of emotion dysregulation. However, they also acknowledge that strengthening stress coping abilities can prevent “breakdowns” (p.112). Therefore, their model assumes that abilities are learned and developed through time, and coping abilities are a combination of effort and competencies. Similar to the CER model, this theory is premised on the notion of deficits that also considers that coping involves accommodation and assimilation, making changes to the environment (accommodation) including internal adaptations (assimilation).

The theoretical assumptions are not framed to consider the debate of whether stress is inevitable in the context of deficiency and limited resources for midwives. Rather, there is limited understanding and empirical evidence to discuss whether the driving force in the induction of stress is individual vulnerability or challenging contexts. These questions are not settled, given that some midwives thrive in such contexts. However, which factors contribute to this capacity to thrive, and whether these same characteristics would be beneficial or detrimental to more vulnerable colleagues, remains underexplored. Furthermore, the scope of the research is not to determine the vulnerability of each member, but rather to focus on the adaptation method to successfully manage the strains encountered in the practice settings. Therefore, the importance of ability and process theory of emotion regulation, and supporting models, enables the implementation of remedial approaches to the problems faced by midwives, rather than

abandoning them to a fixed, unchangeable state that leaves few alternatives but to leave the profession.

5.5. Models of Emotional Intelligence

Building on Gross's process theory of emotion regulation, models of Emotional Intelligence (EI) that focused on ability were favoured. There are two prominent models of EI, the four-branch ability-based model of Salovey and Mayer (1990) and Goleman's (1995) mixed model of EI. Salovey and Mayer promote a set of cognitive abilities related to processing and regulating emotions (perceiving, using, understanding, and managing emotions). They defined EI as "The ability to monitor one's own and others' feelings, to discriminate among them, and to use this information to guide one's thinking and action" (Salovey and Mayer 1990, p.189). Further elaboration of their model included four branches which they argued were distinct from each other but still related: 1) perception of emotions, 2) use of emotions to facilitate thought, 3) understanding emotions, and 4) management of emotions (Mayer and Salovey 1997). Conversely, Goleman's model emphasised a broader range of qualities and skills (self-awareness, self-regulation, social awareness, and social skills). Although these models are compatible, there are some distinct differences. Goleman's model includes personality factors such as self-discipline and personal adaptability, referred to as a mixed model, whereas Salovey and Mayer's model is exclusively focused on cognitive abilities. As DBT-ST is situated within the cognitive model of emotion regulation, Salovey and Mayer's model appears to be better suited for this research.

Moreover, the measures developed have marked differences between the two models. The Emotional Intelligence Appraisal (EIA), created by Bradberry and Greaves (2009) (based on Goleman's model), was designed as a self-reported measure to assess individuals' emotional competencies. It is therefore a subjective assessment of an individual's perceived EI. Conversely, the Mayer, Salovey and Caruso Emotional Intelligence Test (MSCEIT) is an ability-based assessment of the four branches of their model. MSCEIT can be expert-scored so that the amount of overlap between an individual's answers and those provided by a group of 21 EI researchers in each branch can be calculated (Salovey and Grewal 2005). This approach was selected by Salovey et al. (2002), as they contended that individuals have the propensity to answer questionnaires based on socially desirable and self-serving biases. This is an important distinction between the two assessment processes of EIA and MSCEIT. As there is no evidence of midwives' emotional intelligence levels to date, a baseline assessment would benefit the

development of future research in this domain, including whether DBT-ST can show preliminary effects on these levels. Furthermore, Salovey and Mayer's model aligns closely with Gross's process theory of emotion regulation that underpins the cognitive model of DBT-ST.

5.6. Emotional Labour Theory

Researchers in midwifery have called for a focus on emotional labour as a key concept linked to the special relationship and closeness of being '*with woman*'. However, this key concept has been linked to differing degrees of negative outcomes for midwives. Studies have confirmed that excessive emotional labour over time can cause emotional exhaustion (Hunter et al. 2019). Higher use of surface acting carries a higher risk of burnout, while higher use of deep acting reduces the risk of burnout in the context of emotional labour (Yoruk and Acihgoz 2022). However, the context in performances of emotional labour, particularly in the case of midwifery (organisational challenges and intensity and length of time or duration), is of particular importance. A midwife may spend 12 hours or more engaging in emotion work with a labouring mother, and this can be repeated over consecutive shifts. It is the length of time and intensity of the performances that compound these risks.

Hochschild's (1983) original theory of emotional labour was described as "the management of feeling to create a publicly observable facial and bodily display" in the context of service work (p.7), which involved three principal characteristics: 1) face-to-face contact with service users; 2) managing emotional display to support service users; and 3) code of practice imperatives to maintain a display of professional conduct. Hochschild (1983) considered two strategies by which employees self-present in their professional roles through the performance of surface and deep acting techniques. Surface acting involves masking their true feelings to display the appropriate comportment, and deep acting involves the sourcing of past experiences to evoke the required emotional display. Both strategies require management and regulation of emotions in the context of organisational priorities in the workplace.

5.6.1. Justification for Grandey's Emotional Labour Model

Since Hochschild's (1983) original theory, researchers have developed the concept of emotional labour. Ashforth and Humphrey (1993) operationalised emotional labour focusing on external emotional behaviours instead of emotions and introduced social identity theory as a guiding self-stereotyping of the professional roles. In other words, the more an employee integrates their role, the greater the satisfaction. However, it can be argued that employees also develop

dissonance with their institutions. Their professional identity and the dichotomy of conflicting ideologies can lead to job dissatisfaction, as seen in midwifery research (Hunter and Warren 2014). Although Ashforth and Humphrey (1993) conceded that emotional dissonance can emanate from a lack of autonomy and repetitive tasks, their moderators of emotional labour were situated within the social and personal identity of professionals. They proposed that Hochschild's emotional dissonance was an act of depersonalisation (a state of detachment) and a form of coping mechanism which aids individuals to continue to perform their tasks (Ashforth and Humphrey 1993). In other words, the more an individual is attached to their professional role, the less dissonance they will encounter, and in times of conflict, coping through detachment reduces stress. Ashforth and Humphrey's modifications of Hochschild's original theory are limited to behavioural expressions of emotional labour and did not include inter and intrapersonal management of emotions in the process.

Morris and Feldman (1996) expanded Hochschild's theory and introduced an interactionist approach to emotional labour in which emotions are understood as socially constructed and expressed within interactions. Their model included four dimensions, which focused on frequency, duration, and variety of emotional displays, and included emotional dissonance. They considered that emotional dissonance was caused by repetitive tasks of emotional labour that led to emotional exhaustion (Morris and Feldman 1997). This expansion was an important development, as it introduced the '*other*' within the dyadic circumstances in which emotional labour is produced, framing the context of interpersonal relations. However, Grandey (2000) argued that these dimensions do not define emotional labour and that Morris and Feldman's model failed to consider emotional dissonance as a "state of being" (p.97). De Castro et al. (2004) concurred with Grandey's view and argued that this model focused on the work environment and failed to consider individual management of emotions, nor did it consider individual differences.

Building on the above models of emotional labour, Grandey (2000) posited that emotional labour was a process of regulation and expression of individual emotions in the context of organisational goals. To understand why the management of emotions leads to outcomes, Grandey (2000) introduced emotion regulation theory to underpin her model and provide a framework for emotional labour. Gross (1998) defined emotion regulation as "the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions" (p.275). In the theoretical framework of his process theory, Gross (1998) conceptualised emotional regulation as a process of coping, antecedent-focused and response-focused. Antecedent-focused coping is a form of pre-empting cognitive

change and reappraisal. Response-focused coping is behaviour modification and suppression. Both coping mechanisms are akin to deep acting and surface acting respectively (Grandey 2000). This description conforms to Hochschild's (1983) original theory and constructs of emotional labour, which is also conceptualised as a process of regulating the display of felt emotions.

Most models of emotional labour consider emotional dissonance as a negative outcome of both surface and deep acting, leading to emotional exhaustion (Andela et al. 2015). As emotional exhaustion is a dimension of burnout (Maslach and Jackson 1996), Grandey's (2000) model predicted burnout as a negative consequence of emotional labour. In her model, surface acting is positively linked to emotional exhaustion and depersonalisation (Brotheridge and Grandey 2002; Grandey et al. 2012; Andela et al. 2015). However, deep acting has had mixed findings regarding burnout dimensions and continues to be unclear (Grandey and Sayre 2019). Additionally, Grandey's (2000) model included emotional intelligence and self-monitoring as a moderator of individual differences. This considers the dimension of emotional intelligence as an emotion regulation ability, which Brackett et al. (2010) have argued may influence the management of burnout. In subsequent developments of the model, Grandey and Sayre (2019) argued that emotional regulation strategies are essential in the management of emotional labour. Thus, managing emotions, as an ability to perceive, understand, and utilise emotions, is enabled through the model of emotional intelligence (Mayer and Salovey 1997).

Finally, Grandey's conceptual model is consistent with Hochschild's original theory but also incorporates other theories of emotional labour while providing a framework to investigate various dimensions and relationships of emotional labour (Brackett et al. 2010). The model is retained not to evaluate the relative effectiveness of emotional labour strategies, but to argue that their influence on resilience to adversity depends on the acuity with which they are enacted. It is, therefore, contended that acuity can be improved through training (Görgens-Ekermans and Brand 2012). Grandey's model considers the role of emotional intelligence abilities and the process of emotional regulation as strategies to manage the negative outcome of emotional labour. Furthermore, Grandey's model is also congruent with the DBT framework of a dialectical worldview, which is also consistent with both emotional regulation and emotional intelligence theories. Therefore, this research will assess the role of emotional intelligence in the context of emotional labour and consider whether DBT Skills Training intervention can increase emotional intelligence. Improving emotional intelligence to increase its moderating effects on the emotional labour and burnout/distress relationship is suggested to increase the resilience of ECMs. Additionally, this research will also test if DBT skills have a mediating effect between emotional labour and burnout.

5.7. Resilience Theory

As considered in Chapter 4, resilience theory has not yet reached agreement across scholarly disciplines. As a multifaceted concept, resilience continues to be the subject of ongoing theoretical development. More recent scholars suggest that resilience theory does not debate the nature of adversity itself, but rather focuses on how individuals are affected by it, and which factors influence their ability to adapt. How to overcome adversity is considered by some as a dynamic process (Luthar and Cicchetti 2000), whereas others continue to consider it a fixed trait, state, or a mixture of both (Garmezy 1971). The tensions between the relationship between resilience as a process and/or as an outcome remain. What is agreed upon is that resilience involves three components: adversity, outcomes, and mediating factors. The mediating factors are what can explain why some individuals are resilient and some are not. Garmezy (1971) referred to these individuals as “the vulnerables and the invulnerables of a society” (p.114). However, vulnerability and negative outcomes are not universal and therefore imply mediating factors. The absence of a definition that integrates all three components has further complicated the concept of resilience, prompting some scholars to highlight its misconceptions and the problematic use of the term to describe individual traits or psychological well-being (Bonanno 2012). In other words, when someone is said to be resilient or said to have resilience, it does not necessarily mean that they are free of pathology. In an effort to clarify, Ungar (2004) argued that ‘*resilience*’ should be considered as the process and ‘*resilient*’ the outcome. However, being resilient does not necessarily describe a normative adaptation because these seemingly positive overt responses may hide maladaptation that is not necessarily good (Atkinson et al. 2009). Mahdiani and Ungar (2021) explore the concept of the dark side of resilience as a “paradox” (p.2), agreeing with Chelleri et al. (2015) that the concept is “not necessarily a normatively positive concept anymore” (p.1).

Moreover, there is a growing body of literature raising concerns. Denial or avoidance as a defensive mechanism and coping strategy can be found in resilient individuals who avoid emotional processing, which can impact their long-term emotional well-being (Ogińska-Bulik and Kobylarczyk 2015; Thompson et al. 2018). Excessive self-reliance (Leung et al. 2022; Ishikawa et al. 2023) and suppression of vulnerability (see literature on leadership by Kaplan and Kaiser (2013)) may expose resilient individuals to remaining in abusive or toxic environments by suppressing or minimising their emotional responses to traumatic events (Mahdiani and Ungar 2021).

These recent considerations are relevant to the field of healthcare professionals and midwifery. Although there is a lack of research into the profiles of midwives, researchers have been quick

to point out that, although midwives leave the profession, some thrive in the same practice environment. These midwives are what midwifery researchers describe as professionally resilient midwives (Hunter and Warren 2013; Sabzevari and Rad 2019). However, research has also reported on those midwives who engage in bullying behaviours, particularly towards newer and more vulnerable midwives (Burleigh et al. 2023). Without understanding which midwives thrive and which bully for reasons beyond Nietzsche's idea, "that which does not kill us, makes us stronger" (Nietzsche, 1990, p. 33), assumptions about resilience remain problematic. Some midwifery scholars have begun to express concern about the uncritical use of the concept in this context (Crowther et al., 2016).

Without an agreed definition of resilience, the absence of a clear conceptualisation and framework poses a significant barrier to the development and creation of psychometric scales. However, despite the absence of consensus, researchers have adopted a pragmatic approach to context-specific definitions to advance this field. Within this framework, and for this research, resilience will be considered a multifactorial concept, closely aligned with adaptability processes, rather than a fixed or inherent personality trait. Therefore, the Connor-Davidson Resilience Scale (CD-RISC) was chosen for its central focus on the ability to adapt and bounce back from adversity. Furthermore, CD-RISC is one of the most widely applied resilience scales in research to date. Another Resilience Scale for Adults (RSA), focused on the capacity to cope, including acceptance of change, could also have been retained in this study. However, reliability and validity factors were stronger for the CD-RISC.

5.8. Application of Theories and Models

To unify the theoretical concepts and models chosen to underpin this research and applied within its protocol, the different concepts have been assembled and depicted in a framework for better understanding (Figure 5.2). Furthermore, the positioning of the different concepts is intended to aid and guide readers in understanding the relationships between concepts and the DBT-ST. This approach supports the objectives set for the pilot study and serves as a first step towards both establishing proof of concept and beginning to assess the feasibility and applicability of DBT-ST for ECMs.

The protocol aims to address the emotional intelligence and literacy in ECMs through emotion regulation strategies found in DBT. Emotional labour is the current and empirically recognised coping strategy that midwives apply in their daily practice, which contributes to exhaustion and burnout. Therefore, as argued in Grandey and Sayre's (2019) model, selecting emotional

intelligence as the moderator to the emotional labour and burnout/distress relationship is predicted to positively affect the overall levels of resilience. As DBT theory (Linehan 2015a) unites emotional intelligence and emotion regulation theories, DBT-ST is therefore the moderating factor, which also has a moderating effect on resilience.

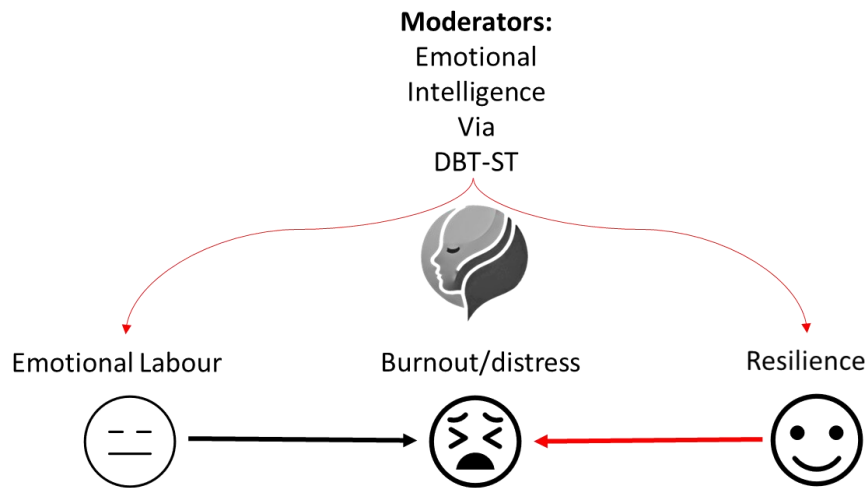


Figure 5.2: Study framework

However, DBT-ST skill use is dependent on the individual propensity to apply individual skills to situations in the practice setting. Skill sets, their acquisition, and levels of mastery are also dependent on individuals (Figure 5.3). The variance of skill use and proficiency will affect the variables involved. Therefore, skill usage is the mediating factor of the emotional labour and burnout/distress relationship, thereby affecting levels of resilience. The diagram is for visual illustration purposes only.

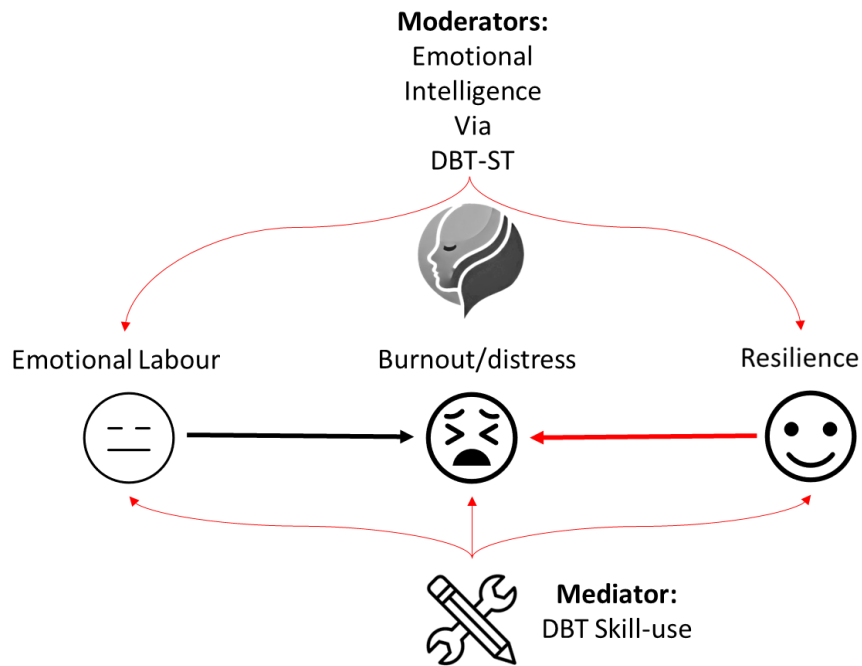


Figure 5.3: Study Framework and mediating skill-usage

To ensure that there is also consistency between variables involved in the research, the measures were selected based on the overarching theory of process-based emotion regulation. Table 5.1 demonstrates these relationships.

Table 5.1 Measures and theoretical relationships

Measures	Theories	Midwifery	DBT
Emotional Labour Scale (ELS) (Brotheridge and Lee 2003)	Grandey's model scaffolds onto Hochschild's theory based on emotion regulation	Acknowledged as a construct for the profession	Compatible based on emotion regulation theory
Emotional Intelligence Scale (EIS) (Mayer, Salovey et al. 2002)	Established on Gross's process of emotion regulation theory	Limited research evidence in the profession	Maps with the emotion regulation module specifically
Davidson Resilience Scale 25 (CD-RISC) (Connor-Davidson et al. 2003)	Resilience as an ability and process model	Considered as a goal-oriented construct	Considered as a capacity
Emotion Regulation Scale (DERS; Gratz and Roemer 2004)	Based on the Cognitive Emotion Regulation (CER) model	New to the profession	Maps onto Linehan's theoretical work of DBT

Maslach Burnout Inventory (MBI) (Maslach, Jackson and Leiter 1996)	Emotional exhaustion and ability to effectively regulate emotions	Recognised variable in the profession	Accepted

5.9. Limitations

DBT-ST is a well-established evidence-based programme in the field of psychotherapy and psychology. Conversely, DBT-ST as a universal application to non-clinical populations is a recent development with a growing evidence base. However, its universal application has predominantly been applied in educational settings. This research is the first to introduce the concept and programme of DBT-ST in the midwifery profession. Although the manualised curriculum and programme have been adhered to in this study's protocol, its strategic application to practice and/or education settings remains to be assessed through the ensuing pilot. The protocol established was built upon the theories and models that support the development of emotion regulation, literacy, and resilience. The objectives are to test its application to ECMs with a pragmatic approach to the feasibility of both organisations and midwives. The drawbacks of the approach may rest upon the lack of availability, time, and settings. Indeed, the modifications made to the DBT-ST programme had to be adapted to midwifery's inherent organisational challenges and staff shortages. While the duration of DBT-ST programmes varies across studies, often ranging from 4 to 12 weeks or longer (see Chapter 4, Section 4.5.4), constraining the curriculum within a shorter timeframe may affect learning outcomes. Furthermore, although careful attention has been given to the selection of measures for their cohesive underpinning models, some measures are also novel to the profession. The emotional intelligence test (MSCEIT) has not been applied to midwives. The Difficulties in Emotion Regulation Scale (DERS) is also a novel application in midwifery. However, it is widely implemented in DBT-based research.

5.10. Conclusion

Providing emotional support to childbearing women and their families is a fundamental aspect of midwifery (Hunter et al. 2019). Managing the emotions of women and colleagues within the context of highly pressurised maternity services has been shown to lead to exhaustion and burnout (Deery and Hunter 2010; Crowther et al. 2016). Taking the premise that the theory of emotional labour requires the management of emotions (Hochschild 1983), and that the overuse

of certain strategies can lead to emotional exhaustion, this research examines the relationship between emotional labour and burnout outcomes. It does so by increasing emotional acuity and improving emotion management, thereby enhancing resilience in ECMs. The evidence-based DBT-ST programme has been chosen to aid this process as it is designed to promote emotional literacy and develop emotional regulation (Linehan 2015a).

Therefore, the theoretical framework for this research, its study, and its intervention are united through a pragmatic lens that bears in mind the paucity of research data concerning emotional factors that mediate/moderate well-being and resilience in ECMs. The theories that were deemed to promote the abilities of change and acceptance were selected based on their congruency with factors of processes and development that enable the promotion of well-being in this population. The overarching theory of Gross's (2015) process of emotion regulation provides the framework that establishes ability as an avenue for change. The theories that are representative of the context of midwives consider the individuals within their respective environments and experiences: vulnerability to stress (Zubin and Spring 1977), coping (Lazarus and Folkman 1984), and the management of emotions through Grandey and Sayre's (2019) model of emotional labour. Salovey and Mayer's abilities model of emotional intelligence and cognitive emotion regulation theory that underpin psychotherapies of CBT, and the theory of resilience as an ability, were also found to be congruent with Gross's process theory. Together, these theories support the central tenet that ability facilitates change and acceptance. These overlapping theories concur with Linehan's (1993) dialectical worldview and strategies that are found within the DBT-ST.

Although DBT-ST has never been applied to this profession, it is, however, recognised for building resilience against emotional dysregulation (Linehan and Wilks 2015), leading to the premise that emotional regulation is an essential focus of DBT-ST. The core of DBT skills maps onto the model of emotion regulation that is considered a process and is therefore developed over time (Gross 2015; Neacsiu et al. 2010). Correspondingly, Mayer and Salovey's (1997) model of emotional intelligence defines it as a cognitive ability that can be developed. The model's domains align with DBT skills, particularly in core mindfulness practices such as observing, describing, and fostering awareness of emotional regulation in oneself and others, while incorporating multiple strategies to manage and regulate emotions. As such, DBT not only enhances emotional literacy but also supports the development and management of emotions across dynamic and ever-changing contexts (a dialectical worldview). This aligns with Deery and Fischer's (2010) argument that midwives require these skills to effectively manage relationships within their working environments.

5.11. Summary

This chapter has addressed the theoretical framework that underpins the research protocol. Theories of dialectics, stress vulnerability, and emotion regulation were presented as relevant to understanding the contextual challenges faced by midwives, including their exposure to adversity. The overarching theoretical foundation for this research is Gross's process model of emotion regulation, from which the Cognitive Emotion Regulation (CER) model was developed. This model underpins both cognitive behavioural therapy (CBT) and dialectical behaviour therapy (DBT). These bring cohesion to supporting the abilities-based models of the other theories and models under consideration within the emotional labour/burnout relationship. Grandey's emotional labour model and Salovey and Mayer's emotional intelligence model were argued to be the most compatible models that fit with the overarching themes of process and abilities of emotion regulation. Resilience and the state of its current conceptual challenges were considered through a pragmatic lens as the researcher's ontological stance in Chapter 7. As resilience is viewed as an outcome, the resilience model chosen was based on Connor-Davidson's abilities approach. To bring together the different concepts within this research framework, a depiction was produced that identified the concepts in relation to the emotional labour/burnout relationship. Finally, the limitations were considered based on novelty and strategic choices impacting the feasibility and outcomes of the pilot.

Chapter 6. Study Approach and Planning

6.1. Chapter Overview

This chapter aims to present the rationale for conducting a pilot of the study protocol in the context of the current study. Understanding the differences between feasibility studies and pilot studies, and their distinct roles, is particularly important when developing a novel intervention. Both approaches contribute to improving and refining a research protocol before undertaking a full-scale study or future research. This chapter addresses the prevalent ambiguities and lack of comprehensive guidance within the field. The chapter discusses procedural complexities and ethical considerations inherent to piloting. The chapter also includes external factors such as gatekeepers and the impact of the COVID-19 global pandemic in the current context. Acknowledging the exploratory nature of pilot studies, limitations are reviewed. This chapter is a preface to the methodology chapter.

Building upon the theoretical framework presented in the previous chapter, which underpinned the development of the study protocol designed to address the emotional well-being of early career midwives (ECMs), the next step was to consider its application in the field. Scholars agree that it is good practice to test the protocol of a large-scale study to avoid wasting scarce resources, participants' time and effort, and to resolve potential problems that may incur financial consequences (Arain et al. 2010; Thabane et al. 2010; Eldridge et al. 2016). Consequently, conducting a preliminary study is essential to evaluate the feasibility of the methods and procedures intended for a larger trial. This preliminary testing not only assesses effects and associations to inform future investigations, but also helps researchers understand what works and what does not, enabling them to make necessary adaptations. However, determining the appropriate type of preliminary study was crucial in establishing the specific aims of the research.

6.2. Differentiating Pilot and Feasibility Studies

To establish the rationale for conducting a preliminary study, it is important to distinguish between pilot and feasibility studies. Not all authors agree on the definition of a pilot study, and there is also disagreement regarding the sequence in which these studies should be conducted leading up to a full-scale trial. This lack of consensus has caused confusion among researchers about the differences, implementation, and overlap between pilot and feasibility studies. As a

result, researchers often use both these terms interchangeably (Whitehead et al. 2014; Drummond 2017).

6.2.1. Feasibility Studies

Feasibility studies and pilot studies are both integral to intervention research, but they serve distinct purposes. Feasibility studies assess whether a proposed study can be successfully conducted by evaluating practical aspects such as recruitment processes, resource availability, data collection methods, and potential barriers to implementation (Bowen et al. 2009). They are exploratory and developmental in nature, designed to assess whether the key components of a full-scale study, such as procedures, resources, and participant recruitment, can be successfully implemented (Arain et al. 2010). These studies inform the design and delivery of subsequent full-scale studies but do not necessarily replicate the exact conditions of those future studies (Sim 2021). In essence, feasibility studies explore whether the proposed research can be done, identifying potential challenges before moving to a more definitive study. Therefore, feasibility studies fall within the broad scope of preliminary explorations of research ideas (Eldridge et al. 2016). A key distinction is that feasibility studies explore whether a study should proceed, whereas pilot studies examine how it should proceed. Although both approaches can overlap in their objectives, feasibility studies are broader in scope and focus on determining the practicality of a study before full implementation (Orsmond and Cohn 2015).

6.2.2. Pilot Studies

Although categorised under the umbrella term of feasibility studies, a pilot study is considered a pre-test before the main trial or full-scale study (Arain et al. 2010; Eldridge et al. 2016; Drummond 2017). Eldridge et al.'s (2016) definition, adopted by the UK's National Institute for Health Research (NIHR) and the Medical Research Council (MRC), describes a pilot study as “a future study or part of a future study, conducted on a smaller scale to ask the question whether something can be done, should we proceed with it, and if so, how” (p.3).

Unlike feasibility studies, pilot studies are often focused on testing specific aspects of the research design in preparation for a full-scale study (Thabane et al. 2010). They are a necessary first step in exploring novel interventions and their applications (Whitehead et al. 2014). Pilot studies can be described as exploratory ventures that allow researchers to develop and test novel approaches and practices. They help ensure participant safety, adherence to research protocols, and the acquisition of experience, competency, and skills necessary for ongoing processes and future improvements (van Teijlingen and Hundley 2002). Pilot studies have a more focused

approach than feasibility studies, concentrating on procedures and ensuring that the study protocol adequately addresses the objectives of the full-scale study.

Furthermore, pilot studies are often conducted to generate data for sample size calculations, particularly when no previous data exist (Thabane et al. 2010). However, caution should be exercised in interpreting estimated treatment effects, as they may be unrealistic or biased due to the limited sample sizes. Pilot studies should only be conducted if the results will be informative regarding feasibility rather than being of statistical significance (Whitehead et al. 2014; Lancaster et al. 2004). Sim's (2021) interpretation of pilot studies aligns with that of Whitehead et al. (2014), who argued that the essence of a pilot study is its focus on conducting a future large-scale study, which differentiates it from feasibility studies that may not plan or may only consider a future full-scale study.

6.3. The Current Study

This study was initially established as a full-scale study protocol. However, due to its novelty in the midwifery profession, a pilot study was considered the first step. One key factor that differentiates this study as a pilot is the testing of the evidence-based standalone DBT-ST programme. Since the current study did not aim to assess the initial feasibility of the DBT-ST programme (Arain et al. 2010), a pilot study was considered more appropriate. The programme is already established and evidence-based. Therefore, the focus was on identifying and improving the efficacy of the newly adapted intervention (Moore et al. 2011). Conducting a preliminary test was crucial to explore and determine the best way to apply DBT skill sets within the midwifery context. Therefore, this study was not merely a pre-test but also an exploratory venture (van Teijlingen and Hundley 2002) to evaluate the programme's effectiveness in a new population.

The design and tools chosen for this experiment were carefully considered both in the literature and methodologically. However, many unknowns remained due to the novelty of the intervention in this population. Although standalone DBT Skills Training has been applied in recent years to various populations, both clinical and non-clinical, it has never been applied to the midwifery profession until now. Furthermore, there is limited research on interventions specifically targeting emotional well-being within this profession (see Pezaro 2016). Few studies have conducted lengthy, psychologically based training in practice environments. The few that have (see McDonald 2010) reported challenges related to recruitment and retention in services with chronic staff shortages. Despite support from stakeholders, uncertainties persisted about

whether participants could consistently attend weekly sessions in this pressurised environment. Attrition rates are often high among healthcare staff (Chmielewski and Łuczyński 2021; Prudenzi et al. 2022). These critical factors led the researcher to conclude that conducting a pilot study was essential to evaluate the “doability” of such a venture (Eldridge et al. 2016).

Engagement is a crucial factor for researchers. Hazzi and Maldaon (2015) note that “data represents the lifeblood of research” (p.54). Piloting this study was designed to help identify the strengths and weaknesses of the chosen tools. The configuration of repeated measures was selected for its alignment with the central theme of emotional well-being among midwives. However, there were uncertainties about the ‘*goodness of fit*’ of the five measures chosen for this population. Additionally, considerations regarding the tolerability of lengthy measures, participants’ data completeness, and other unanticipated events in data collection could potentially jeopardise the full study. Missing data has been a persistent challenge for researchers in both social and natural sciences (Allison 2009; Berchtold 2019).

In summary, the decision to conduct a pilot study rather than a feasibility study was based on the established nature of the DBT-ST intervention and the need to refine its application within the midwifery context. While feasibility studies explore whether a study should proceed, this pilot focused on how to best implement DBT-ST in this specific professional setting. The pilot provided essential insights into participant engagement, study protocol adherence, and data collection processes, all of which informed recommendations for a future full-scale trial.

6.4. How was the Pilot Conceived?

The development of the research protocol underwent several iterations in the preparatory stages to develop a sustainable and viable project that not only addressed the aims and objectives of the study but also answered the maternity service needs. These two separate yet distinctive needs were met through collaboration and negotiation with both the university research team and stakeholders of the maternity service.

The first iteration of the study saw the DBT-ST course intervention situated within the third-year midwifery student university cohort. Based on prior research studies that had applied DBT-ST to non-clinical populations (Chapter 4), the DBT-ST intervention was reduced from twelve to eight weeks compared to the general DBT-ST format reviewed in Chapter 4, starting in Section 4.5. Further feasibility considerations saw the length of the intervention reduced further to six weeks (Section 6.5). Therefore, in this iteration, senior student midwives would undergo the training,

having completed the pre-post-test measures. The student midwives would then integrate their registered NHS employment into their respective maternity services and begin their practice for a period of six months. After this, they would be invited to complete the final cycle of repeated measures and participate in interviews to collect feasibility and applicability data. This iteration of the study protocol was developed to address anticipated stakeholders' and key gatekeepers' needs and reduce the burden on maternity services. The intervention would be taught by a trained DBT expert with the researcher as the co-facilitator, similar to Beanlands et al. (2019). However, circumstances and gaining access to the field would see several major changes to this version of the pilot.

6.5. Gatekeepers

Van Teijlingen and Hundley (2002) highlighted that pilot studies can help identify local politics or challenges that may impact the research process. Large organisations operate within hierarchical structures. Within such structures, gatekeepers hold a powerful position in controlling research access (Clark 2011). These individuals or groups influence whether a study can proceed by granting or withholding access to participants, information, and resources.

There are various levels of gatekeeping within institutions. A key gatekeeper or stakeholder is defined as "an individual or group who is responsible for or affected by health- and healthcare-related decisions that can be informed by research evidence" (Concannon et al. 2012, p.986). In the context of healthcare, this may include policymakers and senior administrators who determine whether research aligns with institutional priorities and the organisation's image. Other managerial and administrative gatekeepers oversee access to specific departments, personnel, or data (De Laine 2000). These individuals do not necessarily contribute financial or research expertise but are responsible for protecting institutional interests and ensuring that research does not disrupt operations.

Ethical approval alone does not guarantee research access, as gatekeepers have the authority to facilitate or obstruct entry to research sites (De Laine 2000; Singh and Wassenaar 2016). Researchers must navigate institutional hierarchies and negotiate access by managing relationships with stakeholders at different levels. These negotiations are influenced by power dynamics, institutional priorities, and professional affiliations. Researchers with pre-existing professional relationships or affiliations within an organisation may benefit from insider status, which can facilitate access (Greene 2014). However, even insider researchers must carefully manage gatekeeper expectations and institutional politics (Amundsen et al. 2017).

In this study, the Director of Midwifery (DoM) was the principal key gatekeeper and played a critical role in facilitating the research proposal, including securing matched funding with the university. As a PhD project, this study did not bring direct financial benefits. Instead, engagement with the study was determined by institutional priorities and practical feasibility within the maternity service. Gatekeepers often assess research feasibility based on the level of disruption it may cause, particularly in relation to staff shortages and service demands (Clark 2011).

During a stakeholder meeting on 24 January 2020, the DoM required substantial modifications to the study before granting access, significantly influencing the study's methodological approach. This included relocating the study to the maternity service and, while the inclusion criteria remained focused on ECMs, the recruitment and intervention were primarily supported within the preceptorship structure. The intervention was subsequently integrated into the six-week induction period for newly appointed midwives, ensuring structural alignment with existing workforce development initiatives. Additionally, a control group was recruited from the previous year's preceptorship cohort.

Further adaptations arose during the COVID-19 pandemic, requiring the originally planned face-to-face DBT-ST programme to transition to an online format. A key decision was to forgo the planned external DBT expert facilitator due to financial constraints and uncertainties around scheduling. Instead, it was determined that the principal researcher would facilitate the intervention. This was deemed the most logistically viable option under the given institutional constraints. The researcher ultimately gained access, but the study's implementation was significantly altered by both gatekeeper decisions and external constraints, such as the pandemic-driven shift to an online format. This highlights the necessity for researchers to balance institutional priorities with research integrity, maintaining flexibility in response to gatekeeper decision making (Amundsen et al. 2017; Clark 2011). These changes fundamentally restructured the study design, requiring amendments to ethical approval (see Appendix 12) and illustrating the extent to which institutional priorities can dictate research feasibility.

Gatekeeper engagement is a complex, relational process requiring trust, communication, and negotiation. Mutual understanding between researchers and gatekeepers can facilitate collaboration, particularly in institutions where research is embedded within professional practice (Simmons 2007; Friesl et al. 2022). However, tensions may arise due to competing institutional demands, highlighting the importance of structured collaboration. Lancaster (1985) identified six key elements for successful collaboration: communication, commitment,

contribution, consensus, compatibility, and credit. These principles should be considered when establishing research agreements to ensure sustainability and alignment of interests.

In this study, institutional priorities, hierarchical power structures, and practical constraints shaped research access. While the study benefitted from the gatekeeper's involvement, this also led to significant modifications, demonstrating the extent to which gatekeepers influence research design. This study highlights the crucial role of gatekeepers in shaping research feasibility and the necessity of strategic negotiation, adaptability, and proactive engagement when navigating structured organisational hierarchies (Handron 1992; Crowhurst and Kennedy-Macfoy 2013).

6.6. COVID-19 Pandemic

The international public health crisis caused by the global COVID-19 pandemic was unprecedented in the way it impacted every human being and institution. Maternity services with ongoing staff shortages saw their goals and aspirations for workforce improvements swept away to prioritise crisis response and risk management (Renfrew et al. 2020). For the NHS and its maternity services, research priorities were to collect data on COVID-19 to inform and develop evidence-based care guidelines (Evans et al. 2020). However, Renfrew et al. (2020) argued that prioritising the protection of health and the well-being of midwives were not mutually exclusive but mutually imperative.

The COVID-19 pandemic was declared by the World Health Organization on 11/03/2020 and the UK imposed three lockdowns during this first year. Consequently, research studies across the nation were put on hold to prioritise pandemic-related research (NIHR 2020). The research site halted the opening of the study and therefore the recruitment of the control group could not be initiated. The principal researcher contracted the disease and maternity services across the nation were under increased pressure. For this pilot study, the planned recruitment was postponed on several occasions.

During this period, maternity staff availability was impacted by the health and safety regime for COVID-19 containment. The management of exposure, symptoms, self-isolation and shielding saw maternity staff shortages increase to record highs (Semaan et al. 2020). With NIHR constraints placed on non-COVID research studies and hospital pandemic health and safety measures, the DBT-ST intervention would move to an online delivery mode. This was a feasible alternative for the researcher, maternity service needs, and staff participants. It was also

necessary to avoid the need for masks to be worn during sessions which would have hindered the quality of teaching. Participants who were assigned to remote working or shielding could continue to be available to attend their weekly sessions. For the researcher, the recordings of the weekly sessions would serve as a valuable learning tool to improve the quality of future training delivery.

Opening of the pilot study was granted confirmation of Capacity and Capability and the research site was finally opened on 19/10/2021. The recruitment process was initiated on 20/10/2021 for the intervention group.

6.7. Limitations of Pilots

Some researchers consider pilot studies as time-consuming and frustrating, especially when problems arise. However, Mason and Zuercher (1995) have argued that this is precisely why pilot studies are valuable, as they address problems prior to investing in and running a full-scale trial. Indeed, Thabane et al. (2010) argued that a pilot does not fail but instead is successful in avoiding the failure of a larger, more onerous study. For researchers, failures of their research studies can have an impact on future funding (van Teijlingen and Hundley 2002). In this positive light, piloting the protocol was an opportunity that yielded valuable lessons to improve and address the efficacy of both the delivery of the intervention and the tools involved. However, the constraints imposed by gatekeepers and the context of the global pandemic were additional concerns which tested the resolve and confidence of the researcher.

Furthermore, there are critical limitations to a pilot study's role and interpretation (Leon et al. 2011). The fundamental limitation of pilot studies is due to the small sample size and low statistical foundation, which leads to a lack of generalisable results (van Teijlingen and Hundley 2002). Scholars warn that those conducting pilot and feasibility studies should not be tempted to use them to test hypotheses because the small sample size can result in making inaccurate predictions and can lead some researchers to overestimate their findings (Leon et al. 2011). The risk of referring to pilots as small versions of the larger study is that researchers start interpreting their results as bearing some significance. However, in this pilot, there was no intention of generalisability, and no hypotheses were made. The preliminary evaluation of the protocol and its constituents can increase the probability of a future study.

Leon et al. (2011) suggested that there is limited value in safety data in pilot studies without a minimum of 95% confidence intervals. Pilot study effect size estimation for a large-scale study

can lead to errors in inferential testing: false positive results (Type I error) and false negative results (Type II error). If there is a false negative (Type II error) resulting from a small sample, the future trial may not be supported. Additionally, Halpern et al. (2002) contend that if a study is too small to detect a positive effect, it will still yield wide confidence intervals as it will reflect both null and clinically important effect sizes, therefore leading to ambiguous conclusions. Therefore, Lee et al. (2014) warn that pilot studies should apply descriptive statistics and confidence intervals of 5%. However, they found that most pilots do not report confidence intervals and interpret the P-values instead. This highlights the fact that researchers continue to either misunderstand or are ill-informed about the parameters of pilot studies.

Pilots are often of poor design quality and lack statistical rigour (Lancaster et al. 2004; Thabane et al. 2010). However, research guidance on developing, implementing, and upholding instrumental rigour is wanting. Malmqvist et al.'s (2019) study on conducting pilots found limited guidance in published research literature and methodology textbooks, with only sparse information dedicated to quantitative methods. There remains a persistent lack of agreement amongst scholars, which has led to confusion as to the differences, implementation, and overlap between pilots and feasibility studies. Sim (2021) suggested researchers lacked comprehension of methods to accomplish their research goals. Eldridge et al. (2016) argued that, without clear published guidelines for small studies like pilots, confusion among researchers in both quantitative and qualitative research will inevitably persist.

The pilot study used in this research probably exhibited many aspects that others would consider limitations. Although the study protocol included a robust evidence-based DBT-ST programme, implementing the protocol in a single-sited maternity service within the context of a pandemic proved problematic. These pressures arose in a profession already experiencing ongoing staff shortages, impacting both the organisation and the research process. Furthermore, compounding these challenges was the lack of funding and limited ability to recruit a broader sample of ECMs who expressed interest in joining the study. Pressures on the maternity services constrained the key gatekeeper's ability to grant wider access to participants and limited recruitment opportunities to the wider pool of ECMs. This resulted in a smaller recruitment pool of newly employed midwives, and the pilot study recruited well below the initial targets, which affected the quality of preliminary outcomes (Chapter 9). The participants in the pilot in both groups were significantly affected by the ongoing pandemic, which reduced their resolve in completing the pilot study.

6.8. Ethical Considerations for Piloting

Thabane et al. (2010) argue that the informative value of pilot studies must be carefully considered to avoid wasting resources and participants' efforts. They suggest it is unethical to complete a full-scale study without a prior pilot study. The current pilot carefully considered the value of conducting a preliminary test and exploration of the research protocol. The context in which the study was conducted was complex and included several unprecedented events, such as the COVID-19 pandemic and national lockdowns. There were alterations to the original protocol by key gatekeepers to gain and maintain access to the field. These unavoidable circumstances, changes, and adaptations fortified the researcher's intent on engaging in a vanguard study. This pilot was a prerequisite to introducing an innovative approach for addressing emotional well-being in the profession, which incentivised them to engage in the study.

Khan et al. (2021) highlight that the Helsinki Declaration, the Nuremberg Code of Ethics, and the World Health Organization's Guidelines of Good Clinical Practice do not comment on informed consent for pilot and feasibility studies. However, informed consent is an integral aspect of healthcare professional processes. The Nursing and Midwifery Council's (NMC) (2018) code and standards for midwives are unequivocal regarding the foundation of acting in the best interests of individuals through the prerequisite of obtaining informed consent. The primary researcher's professional standards, ingrained as a matter of course, guided her approach to the ethical standards of consent by the ethical duties of her profession in every context. Although acknowledging that there may be lacunae in overarching global human rights guidelines, there are robust ethical considerations addressed in organisations, professions, and institutions. The current study ensured that all ethical approvals were sought at both the university and the Health Research Authority for NHS research through the Integrated Research Application System (Appendix 1 and Appendix 8). Participants in this pilot were explicitly informed of the research objectives of the pilot and intentions to move to a full future study before gaining their consent.

Beskow and Weinfurt (2019) contend that informed consent is an ethical aspiration rather than an ethical requirement. This may be the case in other pilot studies, but this pilot study was entirely overt, including its study protocol and all subsequent amendments required by key gatekeepers. All aspects of the study protocol and its future implications for a large study were explicitly communicated at the recruitment presentation. The documentation in the participant information sheet and consent forms reflected the intent of recorded sessions, which was reiterated at the beginning of each weekly cycle of sessions (see Appendix 2). The researcher's

primary ethical consideration was to protect the rights of participants and uphold appropriate communication whenever possible (Khan et al. 2021).

Although ethically approved, some research projects are impractical in a context where circumstances or unforeseen complications arise that frustrate initial plans (Amundsen et al. 2017). In this study, the unforeseen COVID-19 pandemic had a significant impact on the execution of the protocol. Whitehouse et al. (2022) posited that the pandemic shifted the ethical balance from individual to population outcomes due to mounting pressures and scarce resources. The primary researcher endeavoured to navigate these contextual complexities while adhering to the ethically approved protocol, seeking further ethical approval for required amendments where necessary. However, balancing the service needs during unprecedented events can frustrate agreed research plans.

“Important things happen during fieldwork that could never be anticipated at the outset, but this realisation is no excuse for not planning” (Magolda 2000, p.230). For Thabane et al. (2010), this can be construed as having ethical implications for wasting participants’ efforts and time. Given the context of the pilot, particular care was taken to acknowledge the efforts of all those involved in its operationalisation. The altruistic nature of participants’ consent was not assumed. In this case, participants and professional peers were fully briefed on the scope of the study, even though transparency at this stage risked reducing recruitment (Halpern et al. 2002).

Researchers must ensure that participants understand that a pilot or feasibility study will not produce generalisable results and clarify whether their outcomes will be integrated into the full trial (Sim 2021). However, Whitehead et al. (2014) contend that some pilot study (external) results cannot be combined with the final study. The current pilot study was a test to explore the feasibility of its stated objectives and to consider the preliminary effectiveness of the universal application of the DBT-ST programme on ECMs. The current pilot's protocol was executed online due to the COVID-19 pandemic. This adjustment confined the majority of participants to the preceptorship sample pool, which was not part of the original study protocol. As a result, there was no plan to combine the results with a future full study. Instead, participants were made aware that this pilot was exploring the applicability of the DBT-ST programme on midwives and that their efforts were solicited as integral members of the profession aware of the challenges to their emotional well-being that clinical practices incur.

6.9. Summary

This chapter has critically examined the literature regarding the piloting of research protocols, highlighting the value and importance of conducting preliminary testing of these protocols before embarking on a full-scale study. It also describes the major steps, challenges, and considerations involved in the development of this pilot. Central to this discussion was the differentiation between feasibility and pilot studies, a distinction that often confuses researchers of all career stages. Furthermore, there is a persistent lack of guidance for pilot and feasibility studies, which extends to the issues of consent and poses ethical considerations. As exploratory ventures, these studies provide valuable insights but are limited in their ability to draw definitive conclusions, which is a fundamental limitation of pilot studies. This review also describes the major factors and key roles that influenced the modifications of its design and approach to the field. It explored the role of gatekeepers and the impact of the global pandemic, and how they impacted the original protocol and its final iteration. The following chapter will address the methodological foundations of the pilot, describe the methods applied, and provide a list of the modifications introduced in this chapter.

Chapter 7. Methodology

7.1. Chapter Overview

This chapter provides a comprehensive overview of the methodological and design considerations that informed the pilot study, forming the foundation for understanding the research process and its rationale. The first section presents the research question and objectives, followed by the justification for adopting a mixed methods research (MMR) approach, with associated methodological considerations. This is supported by a discussion of the underlying philosophical assumptions of the pragmatic paradigm, explaining how these align with the study's aims and questions. The chapter also outlines key modifications made to the original protocol and explains why these changes were necessary. Chapter 8 will present the specific methods used for data collection and analysis and describe the procedures followed to support the rigour and validity of the pilot's findings.

7.1.1. Research Questions

- Can a DBT Skills Training Group Intervention modify emotional regulation factors in early career midwives?
- What strategies do early career midwives find useful to improve their resilience to workplace adversity?

7.1.2. Research Objectives

- To assess the preliminary effectiveness of DBT Skills Training Group Intervention for improving the emotional well-being of early career midwives compared to control.
 - Maslach Burnout Inventory (MBI)
 - Difficulties of Emotional Regulation Scale (DERS)
 - Mayer, Salovey, Caruso Emotional Intelligence Scale (MSCEIT)
 - Emotional Labour Scale (ELS)
 - Connor-Davidson Resilience Scale (CD-RISC)
- To explore participants' experiences of the intervention and applicability of DBT Skills in practice (feasibility, acceptability, applicability).
 - Acceptability of DBT-STG intervention
 - Applicability of DBT skill sets
- To explore what other strategies would benefit early career midwives to improve their resilience to workplace adversity.

- Strategies that early career midwives find of benefit to improve their resilience to workplace adversity
- Improvements to the DBT Skills Training programme for midwifery specifications

7.2. The Rationale for Applying MMR

This research's overarching aim was the introduction of a novel approach to addressing the challenges to the emotional well-being of early career midwives (ECMs). While the manualised DBT-ST programme has a strong evidence base, its universal application to non-clinical populations represents a recent development, and it has never been applied in this context. Therefore, this pilot also serves as a proof of concept.

As a novel inquiry, set in a complex context, a global pandemic, a single-sited research setting, staff shortages and sandwiched between an induction phase of newly appointed, newly qualified midwives, this pilot required a pragmatic approach to the field and data collection. When considering contexts, social, interpersonal, and personal contexts of the researcher, as recommended by Creswell and Plano Clark (2018), the paradigm must accommodate complexities and be congruent with the personal beliefs of the researcher to be consistent across the research process.

Another principal factor in determining the methodological approach of the pilot was the research questions which indicated that both deductive and inductive approaches were necessary. Given these methodological requirements, the research integrated positivist and interpretivist philosophies through a mixed method research (MMR) approach. Although constructivist and post-positivist paradigms were historically considered incompatible philosophical worldviews by some scholars (e.g., Kuhn 1962), a mixed methods approach supports the integration of a pluralistic paradigm. MMR is not committed to a philosophical stance (Creswell et al. 2007). By focusing on the question within its contextual environment, pragmatism facilitates the inclusion of post-positivist and constructivist epistemic frameworks. This approach also acknowledges the axiological values inherent to the researcher's perspective.

Johnson (2017) describes the paradigm of pragmatism as a "metaparadigm" and defines it as "a multidimensional dialecticalism that asks all of us to appropriately listen to what needs to be listened to for each research question, purpose, stakeholder interest, and practical activity" (p. 158). Therefore, unlike Kuhn's (1962) conceptualisation of limited mono-paradigmatic orientation of research and philosophical frameworks (positivist or post-positivist or

constructivist), the pragmatic paradigm looks for practical and pluralistic approaches to answer the research question. By encompassing a pluralistic worldview, MMR, underpinned by the pragmatic paradigm, supported the researcher's process and logic of inquiry through its chosen research design (Creswell 2008).

For pragmatists, the epistemological assumption is based on the relationship of both the researcher and the phenomenon because they are interconnected socially and naturally (Biesta and Burbules 2003). This means that epistemologically it is the research problem and the researcher's conceptualisation of the problem that will define the epistemic assumptions (Mertens 2018). For Johnson (2017), the pragmatic researcher will adopt a relational epistemology. This reflects the epistemic and methodological flexibility afforded to MMR. The values that guide this PhD research are inextricably aligned with the values of the midwifery profession and are bound by care, openness, and acceptance of differences. These ontological assumptions are based on the nature of reality or how one perceives the reality of the world (Höijer 2008). Moreover, the ontological stance adopted in this research is informed by a professional background in midwifery and training in psychological therapies that are relationship-focused. Given that DBT-ST, the subject of this research, is grounded in a dialectical worldview, the pragmatic assumptions of dialectical pluralism were considered appropriate. This supports a pluralistic evaluation of methods and aligns with the relational and contextual nature of the inquiry. For the pragmatist researcher, the emphasis is on the experiences that interact with beliefs and actions rather than a specific ontological stance that determines the research endeavour. Cohen et al. (2017) considered axiology as "the values and beliefs that we hold" (p.3), which further positions the researcher's assumptions of what is of value in the research problem.

7.3. Mixed-Method Research Design

The purpose of research designs is to define the roadmap for the collection, analysis, interpretation, and reporting of data in research studies (Creswell and Plano Clark 2018). Research designs enable the researcher to make decisions about the methods adopted for their research. This section presents the research design adopted by this MMR pilot study.

7.3.1. Sequential Explanatory Design

Based on the aims and objectives of this study, the sequential explanatory design (Figure 7.1) was retained as the design of choice (Creswell and Plano Clark 2018). The pilot study aimed to evaluate the preliminary effectiveness, feasibility, acceptability, and applicability of DBT-ST

intervention, and to explore what strategies would develop, grow, and maintain well-being and resilience to workplace adversity. Findings from the first phase were predicted to answer the quantitatively driven research question: Can a DBT Skills Training Group intervention modify emotional regulation factors in early career midwives?

The second phase was planned after the three-month follow-up's last cycle of repeated measures. This second phase aimed to explore the subjective experiences collected via semi-structured interviews focused on the acceptability and feasibility of the intervention programme and the applicability of DBT skills in practice. The qualitative data collected were to be thematically analysed by applying the Braun and Clarke (2006) approach. This phase planned to collect the views of early career midwives on what they considered important to improve their resilience to workplace adversity: What strategies do early career midwives find useful to improve their resilience to workplace adversity?

The results of the pilot were to inform future full trial processes and enable optimisation of the DBT Skills Group Training intervention, including sample size calculations for this non-clinical population and professional sector. However, the second phase could not be completed due to the lack of participation from the intervention group members. Although there were no official withdrawal requests by participants from the study, and despite the researcher meeting face-to-face with both groups, participants continued to show disaffection through non-responses. Due to the delays incurred by participants on the research and doctoral programme timeline, and the researcher's health complications, the second phase qualitative method was unable to be completed. However, given the researcher's pragmatism that is geared towards “what works in practice” (Creswell and Plano Clark 2018, p.41), a critical reflection enlightened by the researcher's field notes is offered to address the shortfall.

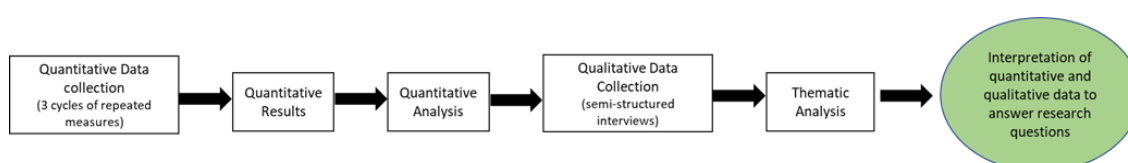


Figure 7.1: The flow of explanatory sequential mixed-method design

7.3.2. Overview of Pilot's Protocol

As the manualised DBT-ST programme was developed and extensively tested through empirical methods in the field of psychology, it was essential to preserve the evidence base and ensure replicability through the use of standardised, validated instruments and quantitative methods. However, quantitative measures are inflexible and fail to capture subjective experiences that can

be gained through qualitative methods. “A good intervention, for example, could and should use a variety of data collection techniques to understand whether something works, how to improve it, or why it does not work” (Gorard 2013, p.12). Therefore, combining quantitative and qualitative methods in a MMR design was expected to address the research questions of this study. Figure 7.2 represents the pilot’s processes and timelines.

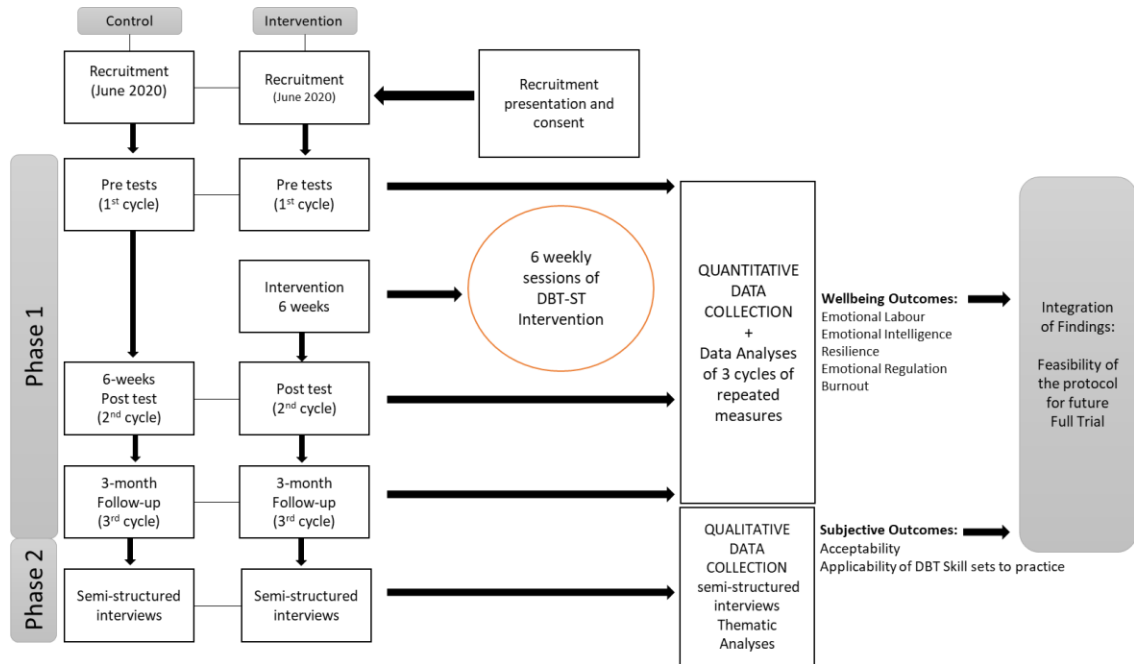


Figure 7.2: Original study overview

7.3.3. Choice of Methodological Approach

This study set out to explain the impact of the intervention on participants through the explanatory sequential design. The significance of giving equal status to the explanatory sequential study for this research was to validate the quantitative results and to explain these using the qualitative phase (Creswell and Plano Clark 2018). The explanatory sequential design uses the same population across methods and phases within the design. This allows continuity into the subsequent phases of data which deepens the analysis leading to the final interpretation (Creswell 2008). This design is congruent with the pragmatic approach that considers the objective and subjective nature of this research.

Moreover, “the weighting or priority of the study design may not become apparent until after the study has been conducted” (Teddlie and Tashakkori 2009, p.140). According to Teddlie and Tashakkori (2009), although determining the priority of a methodological approach is important, researchers can modify their priority decision after the study is complete. Generally, MMR

designs are “fixed or emergent” at the outset (Creswell and Plano Clark 2018, p.52). However, Creswell and Plano Clark (2018) acknowledged that, although a research design was set out as a fixed design at the beginning, due to sample size limitation or challenges in the field that prohibit answering the set research question, an emergent design can be adopted.

As this study was a pilot of the research protocol, the chosen design allowed scope for future improvements. In mixed methods research, the concept of weighting or theoretical drive, as conceptualised by Schoonenboom and Johnson (2017), is a central component that should stand independently, while the supplemental component is considered complementary. In contrast, equal status designs assign the same value to both components, which the mixed methods researcher adopts as “a starting point, the logic and philosophy” (Johnson et al. 2007, p.113). In such designs, the pragmatic researcher is guided by the research problem, allowing responsiveness to emerging data in order to answer the research questions effectively.

In some cases, equal status may be planned from the outset, but emerging data require a shift to an emergent design. Johnson (2017) argues that the value of MMR lies in its capacity to function as a “process philosophy” (p.157), involving the ongoing interpretation of thesis and antithesis to achieve synthesis. This interpretive process is rooted in dialectical pluralism, which underpins the pragmatic paradigm. Accordingly, the pragmatic researcher adapts to the demands of the research problem and determines, based on the quantitative results, whether the design should prioritise the quantitative or qualitative component in a dominant-less dominant structure. While this flexibility is a key strength of MMR, it also requires that the research questions remain responsive to such methodological adjustments.

Furthermore, should there be a divergence between the first and second phases, Erzberger and Kelle (2003) contend that the disparity is due to a methodological mistake or the initial theoretical assumption. However, when assessing sequential legitimation in mixed methods, the researcher can revise the design to a multiple-wave format (Johnson and Onwuegbuzie 2004). This allows for the collection of qualitative and quantitative data at multiple time points, depending on emerging findings during data collection and analysis. Therefore, mixed methods presented a pragmatic approach by allowing flexibility to the research context, which, in this case, would be the problem, and not the system which leads the research inquiry.

This study combined quantitative and qualitative methods to enhance the breadth and depth of data. It aimed to evaluate the appropriateness of the DBT-ST intervention by first identifying relevant factors quantitatively, then exploring their meaning through qualitative inquiry. The methodological choices made in this study were to address the research questions for each of

the phases in the study. A quantitative methodology for the first phase applied a deductive inquiry to test whether the DBT-ST intervention was able to modify measures of well-being between groups. The first phase would be followed by a qualitative inquiry to explore the subjective experiences of the intervention to determine its acceptability and the applicability of DBT skill sets in practice. Data collected in this phase were to be thematically analysed. The feasibility of the protocol for a future full study would be determined by the integration of both quantitative and qualitative outcomes.

7.3.4. Choice of Quantitative Methods

The primary purpose of choosing the quantitative method in this study was based on the factors involved in DBT-based programmes that have been situated in the field of psychology and are empirically evidence-based. Psychological interventions are based on the systematic collection and analysis of data. DBT is underpinned by biosocial theory that focuses on emotions based on dialectical philosophy (Chapman 2006). As such, Castellan (2010) stated that “Preconceived concepts and theories are used to determine what data will be collected” (p.7). In the case of this research, it meant choosing a scientific approach for obtaining the type of data appropriate for empirical consistency across disciplines.

This scientific method is based on a set of assumptions, rules, and procedures to conduct research. Quantitative methodology seeks to obtain accurate and reliable measurements from a phenomenon by applying deductive reasoning. This method provides information regarding the relationship between variables of interest to predict future outcomes. The data gathered allows the researcher to complete statistical analyses enabled by statistically validated tools specifically chosen for this study (see Chapter 5). This empirically based method was chosen for its ability to answer the mathematically oriented question the researcher had developed.

7.3.5. Strengths and Weaknesses of the Quantitative Approach

Quantitative methods allow the researcher to be positioned as an objective observer who has the primary role of determining the causal links between variables within the research (Erickson 1986). Quantitative research includes descriptive, correlational, causal-comparative/quasi-experimental, and experimental designs. The strength of experimental research lies in its ability to identify the relationship between variables once an intervention is introduced. The quantitative method enabled the researcher to apply deductive scientific reasoning to the collected data and manipulate the data through power calculation. Unlike qualitative subjective data, quantitative methods allow replicability and generalisability of study findings. The use of control variables enables the researcher to manipulate an independent variable to study its

effects on the dependent variable. This helps the researcher to consider similarities and/or differences between both the intervention and control group to ensure that the effect of the intervention is not due to other factors.

Internal validity is based upon the inferences regarding cause-effect or causal relationships when assessing the efficacy of an intervention. However, internal validity depends upon whether the validity of the findings has been caused by the intervention or other unknown factors. Threats to internal validity can occur when research is conducted in real-world contexts. In this study's real-world context, where multiple factors and variables were liable to threaten both internal and external validity, the researcher attempted to reduce these threats by applying a control group to the design. Randomisation of participants into selected groups helps to reduce biases, as long as sample sizes are equal (Clark-Carter 2018). However, recruitment constraints in this study led to a smaller pool than planned for both groups. Furthermore, process weaknesses during data collection or issues that develop during fieldwork can introduce further threats to outcomes.

Data collection methods such as surveys and questionnaires (standardised and validated) are utilised for obtaining behavioural data. These collection tools are numerically based and allow computational and statistical manipulations, which are considered to reduce systematic bias in outcomes. However, questionnaires and surveys have strengths and disadvantages. Systematic factors of questionnaires may reduce research costs due to their ease of application. Moreover, online or electronically administered questionnaires can allow respondents to maintain anonymity. However, responses from participants can be affected by several problems.

In quantitative methods, tools such as questionnaires are '*inflexible*', as the instruments cannot be modified once the study has commenced (Choy 2014). Questionnaires do little to answer the reason why individuals make choices or engage in a particular behaviour. Complementary subjective data with the ability to address this category of questions is more appropriately addressed via qualitative methods rather than by quantitative methods alone (Johnson and Onwuegbuzie 2004).

Self-reported questionnaires reflect the subjectivity of respondents, such as social desirability bias that confounds responses, resulting in respondent bias (Vesely and Klöckner 2020). In the case of individual assessments of intelligence, Paulhus et al. (2003) found that individuals consistently overestimated and well below their actual intelligence test results. In the selected instruments in this study, participants were asked to complete self-reported measures aligned with the abilities model and framework described in Chapter 5. The ability-based measure of

emotional intelligence assessment chosen for this research considered response bias problematics. This test focused on the processing of emotional information, assessed based on performance. By applying a consensus scoring approach based upon the expert criterion of performance responses, social desirability-biased responses were less likely to affect scores compared to self-reported measures used to test trait emotional intelligence measures (Kluemper 2008).

Self-reported data from questionnaires may not be reflective of individual context, and some questions may be ignored or left unanswered, leaving parts of the questionnaire incomplete (Walker 2005). Surveys and questionnaires risk respondent fatigue or experimental mortality (withdrawal and dropouts), which leads to unequal groups with impacts on the findings (Slack and Draugalis 2001). Attrition and recruitment are common problems in sampling, which can limit the generalisability of an intervention (Walker 2005). For example, weaknesses in sample size calculations or recruitment strategies can introduce selection bias. These weaknesses, combined with problems arising in the field (Mahato et al. 2022), can affect statistical analysis, particularly in the case of missing data, which renders interpretation and outcomes problematic.

Non-respondent bias, according to Barclay et al. (2002), is contingent on the sample size and population differences within the sample. Porter and Whitcomb (2005) argued that non-respondents were less educated and older, with Caucasian females more likely to respond to surveys than other student groups. However, Novo et al. (1999) found women, compared to men, were more likely to be late respondents or non-respondents. This suggests that response bias is complex, mainly because researchers have not been able to research individuals who are not willing to engage. Wright (2015) stated that “response rate alone is a fairly poor predictor of response bias” (p.306). Similarly, Kreuter (2013) argued that non-response rates alone do not reliably indicate non-respondent bias. Instead, bias is more accurately predicted by the relationship between survey variables and the likelihood of response, suggesting that the context and design of the questionnaire play a critical role in shaping participation patterns.

Respondent fatigue (survey fatigue) is a frequent problem in the collection of survey data (Novo et al. 1999; Kreuter 2013). Length, topic, and complexity of questions can influence participants to ignore, skip, or select answers based on ease (straight-line responding) (Ben-Nun 2008). In addition to the quality of the questionnaires, there are a variety of influencing factors that can affect respondent rates, such as social desirability bias. This is where a participant selects answers that they believe to be more desirable. The researcher can select questionnaires that are designed to reduce this type of bias. Participant burden can also be reflected in complex

working environments. In this study, the complexities of chronic staff shortages were impacted further by the COVID-19 pandemic, which increased maternity service pressures. Survey fatigue was identified to have impacted response rates during the COVID-19 pandemic. De Koning et al.'s (2021) study showed that working during the pandemic affected medical professionals' ability to engage in survey completion compared to a non-pandemic working environment. Their findings reflect the additional difficulty of conducting research with health professionals who work in time-sensitive environments.

7.3.6. Choice of Qualitative Methods

Qualitative methods seek to collect subjective data to provide an understanding of the real-world complexities of human experiences (Creswell 2008). Unlike quantitative methods that apply deductive reasoning, qualitative research is based upon inductive inquiry that focuses on the socially constructed nature of reality (Creswell and Plano Clark 2018). Investigating the preliminary effectiveness of a novel intervention with quantitative methods alone may render feasibility objective; however, to consider subjective factors that influence those outcomes, qualitative methods are required. In this study, factors of acceptability of the intervention and applicability of the DBT skill sets to the practice environment require interrogation of the subjective experiences of participants.

The semi-structured interview method is a data collection method that is versatile and provides flexibility for both the interviewer and interviewee (Kallio et al. 2016). The interview guide formulated by the researcher is based on questions related to the topic of interest or explains results from a quantitative phase of a mixed methods research design (DeJonckheere and Vaughn 2019). This mixed methods research design had an inductively framed question that required the collection of participants' perspectives to further explain the findings of the first phase of the design.

Unlike quantitative methods, "statistical representativeness is not the goal of qualitative research" (DeJonckheere and Vaughn 2019, p.3). Instead, qualitative interviews aim to reach thematic saturation through a purposive sample. Indeed, flexibility is an important factor. The researcher is dependent on the availability and motivation of the interviewee to reach the level of exploration needed. Malterud et al. (2016) proposed that "information power" was a better concept to explain the level of information needed from participants, meaning it is the quality of disclosures that matters rather than the amount of the sample size (p.1753).

In this study, all participants were early career midwives (ECMs) who practised in the same NHS Trust. Although their experiences of the intervention may have resulted in differing opinions

about the intervention itself, all participants had similar practice experiences that enabled them to hold subjective views about what strategies would improve their well-being. Furthermore, participants in the intervention group would have gained opinions on the usefulness of DBT skill sets that may apply to their practice environment. Therefore, collecting their opinions would benefit the quantitative outcomes of the first phase.

Qualitative analysis of the semi-structured interview data acquired from a predetermined thematic framework relies on thematic or content analysis. Thematic analysis was chosen for its congruency with the aims defined by the research question for this phase in the design. Thematic analysis is considered a flexible approach to analysing qualitative data as long as there is consistency and transparency in how this is carried out (Braun and Clarke 2006). Lincoln and Guba (1985) argued that rigorous qualitative research required credibility, dependability, confirmability, and transferability within measures and processes. Thematic analysis has been criticised for its lack of theoretical underpinning. However, Braun and Clarke (2019) argued the lack of theoretical assumptions allows the framework to be applied more flexibly in conjunction with a range of theoretical perspectives. It can be argued that this stance is in line with pragmatic assumptions in this research.

7.3.7. Choice of Testing Cycles and Follow-up Time

Research studies of well-being interventions (resilience, emotional intelligence, stress reduction, and others) have identified that, although they statistically showed strong effects in post-test results, there is a gradual decline over time (Stice et al. 2007). Kotsou et al. (2011) suggested long-term assessment was needed to evidence knowledge acquisition and recommended at least three to six months post-intervention. Indeed, Gorgas et al. (2015) found no immediate effect post-intervention but did so only after six months, positing that improvements may take time to be assimilated and become detectable. In order to gain an understanding of the estimated linear decline, semi-structured interviews were planned to be conducted to capture qualitative data and consider moderators for improvements.

7.3.8. Choice for Control

Systematic reviews of resilience-based interventions have found most studies lacked control groups (Helmreich et al. 2017). ErKayiran and Demirkiran (2018) used 71 participants in their university-based quasi-experiment of an intervention to improve emotional intelligence and interpersonal relationships in a cohort of nursing students. They found that 71 participants would enable an effect size of 80% power. However, Gorgas et al. (2015) had 19 participants in their intervention group and 14 participants in their control group. Kotsou et al. (2019) have

argued that control groups are essential components in the evaluation of interventions and recommend applying a waiting list approach to reduce motivation biases. This study design sought to include a control group to improve the quality of the intervention but was unable to apply a waiting list due to the pilot study and doctoral timeline limits.

7.4. Changes Made to the Original Protocol in February 2020

The protocol for the Pilot was approved by HRA/IRAS on 7 January 2020 (Appendix 11). Following the stakeholder meeting on 24 January 2020, several changes were requested that required further ethical approval. During this process, in March 2020, the COVID-19 pandemic was declared along with the implementation of health restrictions. Research studies were halted. The study amendments to the protocol were obtained on 10 March 2021 (Appendix 12). Recruitment was postponed until June 2021 due to the ongoing challenges faced by the maternity service unit. Additional delays were caused by continued pressures within the service, as well as the researcher's personal circumstances, including a bereavement and a road traffic accident. As a result, the intervention was not scheduled until October 2021, when the study ultimately commenced. The key changes are outlined below:

- The six-week DBT-ST programme was moved to an online format. The online format required an amendment to the HRA/IRAS (Appendix 12).
- The researcher would facilitate the intervention without a DBT co-leading expert. This required an amendment to the HRA/IRAS (Appendix 12).
- The DBT-ST sessions would be recorded by a DBT expert to ensure DBT standards were upheld. This required an amendment to the HRA/IRAS study (Appendix 12).
- An additional measure at pretest for the intervention group via the "University of Rhode Island Change Assessment Scale" (URICA) was used to assess readiness to change. This required an amendment to the HRA/IRAS study (Appendix 12).
- Amendments were made to the Participant Information Sheet (PIS) and Consent form for the intervention group to reflect the amendments for the online format and recording of the sessions (Appendix 3 and Appendix 4).
- Although recruitment was still open to eligible ECMs, backfill support was only given to newly appointed midwives and preceptorship midwives. All other midwives would be required to participate on their own time.

Due to the challenges of the COVID-19 pandemic and requirements of the gatekeeper to maintain access to the field, several significant changes were made. Although the protocol for

the intervention programme was not altered, the online format required lesson planning style and could no longer include roleplay.

With repeated COVID-19 lockdowns during 2020 and 2021, and with the challenges mentioned above, particularly with staffing levels and recruitment issues in the service, stakeholders allowed access to two pools of newly appointed midwives to be opened for recruitment in October 2021.

- Recruitment of newly appointed midwives resulting in the recruitment for the DBT-ST intervention group (October 2021).
- Recruitment of newly appointed midwives that resulted in the recruitment of the control group (December 2021).
- Due to scheduling constraints and short notice, the other ECMs that had agreed to participate in the intervention group decided to join the control group instead.
- Each group followed the same timeline of the study design (Figure 7.3).

After completing the intervention and post-test repeated measures, the study faced significant challenges due to the disengagement of participants in the intervention group. Despite continued efforts from NHS stakeholders to support recruitment and retention, the study was discontinued as the researcher experienced an unexpected health event requiring extended leave. Consequently, the planned Phase 2 of the study could not be completed (Appendix 15). Below is a figure summarising the final study design.

The limitations of the amended pilot study will be reviewed in Chapter 8.

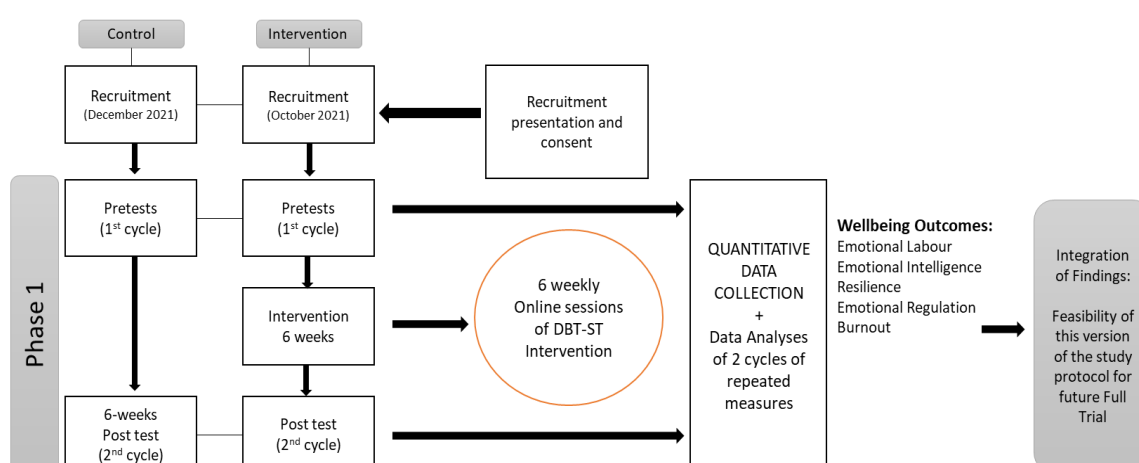


Figure 7.3: June 2021 study overview

7.5. Limitations

Although there are inherent limitations within traditionally established constructivist and positivist paradigms, MMR inherits the respective limitations from both ends of the quantitative and qualitative continuum and introduces additional ones of its own.

MMR designs raise resource implications with multiple types of data that incur larger volumes of data management and data collection. Time requirements are higher in MMR than in single method studies. This is particularly the case in sequential MMR designs that require follow-up time within and between phases. Data-collection may include extensive data sets. Data analysis in sequential design also requires extensive time and skills in both quantitative and qualitative disciplines. Andrew and Halcomb (2009) suggested the use of a single-sited research location to minimise the burden of data collection. This research study was run in a single research site which, although minimising the logistical challenges for data collection, also reduced the recruitment pool.

Researchers need to be proficient with both quantitative and qualitative data analyses. This is particularly the case for early career researchers or PhD students who may lack expertise in both disciplines. Although the added complexity will incur skill development for the novice researcher, the support required may increase the reliance on the university supervision team.

Consideration of participant burden has been raised by Creswell et al. (2011) regarding time commitment caused by follow-up contacts and increased disruptions. Indeed, the time between phases within the sequential design can affect participants' motivation to continue participation in a research study. Respondent burden is considered to contribute to participants' non-responses to data collection which, according to Ampt (2003), can be affected by competing time constraints, external pressures and commitments, physical, intellectual, and emotional availability, and considerations of importance or relevance. These factors can have serious consequences for a study and should be considered at the design stage.

In this research, the context of ongoing staff shortages and the COVID-19 pandemic created increased pressures on the maternity service. Post-enrolment non-responses increased after the completion of the intervention. Post-measure data were challenging to collect and continued disengagement intensified during the last cycle. Participants were asked to discuss their lack of engagement during a meeting where the primary researcher repeated that they were free to withdraw at any time and for any reason. Most notable were the affirmations of time constraints, external pressures, and emotional availability. Despite having been allocated free time to complete the outstanding measures, most participants capitalised on their free time to consider

personal goals. Retaining emotional availability and the relevance of the final phase of the research in the context of ongoing service pressures, participants' motivation for their continued engagement proved problematic.

Moreover, MMR designs are more complex than single studies, which increases participant burden but also that of researchers. Stadnick et al.'s (2022) study highlighted the most frequently identified issue for researchers in MMR was participant burden. Recruitment challenges such as retention and non-response are some of the most difficult aspects of MMR due to the complex designs that require participants' engagement at multiple time points (Page and Persch 2013; Woolf and Edwards 2021). Non-response reduces sample size and introduces bias (Edwards et al. 2009; Woolf and Edwards 2021) but also disrupts timetables and leads to abandonment of the study.

Strategies suggested for the mitigation of burdens include choosing brief instruments, modifying designs, offering compensation, communication and relationship building, or even assertive tracking. Doku et al. (2003) suggested assertive tracking via email, telephone, or face-to-face contact to improve compliance. However, this can lead to ethical concerns of overburdening participants. Strategies to reduce participant burden should be considered during the preliminary planning stage and researchers should be aware of these considerable challenges at the earliest stage of their projects. However, despite careful considerations of both participants and research objectives, including stakeholder requirements to access, unpredictability in the field may persist. The most appropriate strategy would be piloting to test the operational acceptability of the protocol, which is what was applied to this study (Loscalzo 2009).

7.6. Summary

This chapter has outlined the methodological rationale and design of the pilot study, including its philosophical underpinnings of mixed methods approach. It included the outline of the changes to the original protocol and why they were necessary. Building on this foundation, the next chapter presents the practical implementation of the study, detailing the methods and rationale, providing a comprehensive account of how the research was operationalised.

Chapter 8. Methods

8.1. Chapter Overview

The chapter outlines the methods used to implement the study, detailing the practical steps taken to design, recruit, deliver, and evaluate the intervention. It builds on the theoretical foundation provided in Chapter 7, focusing on the procedural aspects of the research. Key sections describe the study design and modifications made for online delivery, the setting and sampling strategies, and recruitment processes for both the intervention and control groups. The delivery of the Dialectical Behaviour Therapy Skills Training (DBT-ST) intervention is explained, alongside the researcher's training and role as facilitator. The chapter also details the quantitative data collection tools, methods of analysis, and measures to ensure validity and reliability. Ethical considerations, including risk management, confidentiality, and mitigation of researcher influence, are discussed. Finally, the chapter reflects on the strengths and limitations of the study's methods.

8.2. Study Design and Modifications

As described in Chapter 7, the unforeseen changes to the originally planned pilot study resulted in alterations to its design. These changes occurred during the planned first phase of the pilot post-intervention, where participant engagement became increasingly challenging to maintain. These challenges, combined with the limitations of the PhD timeline and the researcher's health, exerted significant pressures for the continuation of the pilot. The study was prematurely halted before the end of the third cycle of repeated measures. Therefore, the final study design was limited to a pre-post-test design (Figure 8.2). The study overview (see Figure 7.3 in Chapter 7) represents the final design.

Although the timeline of the study pilot ended prematurely, the methods employed were adhered to.

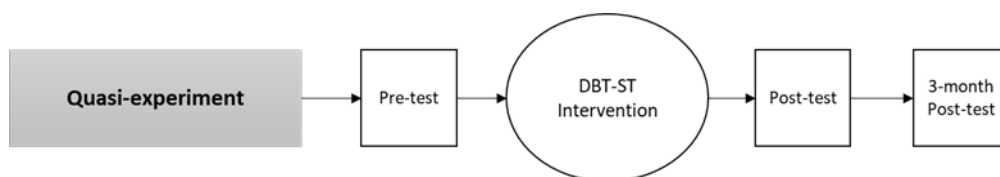


Figure 8.1: Original design for Phase 1

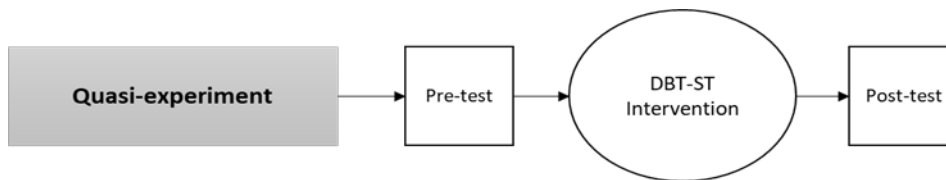


Figure 8.2: Final adaptation of the pilot design

8.3. Setting and Sampling

8.3.1. Setting

The study was conducted in a large NHS teaching hospital maternity service in England. The maternity service supports approximately 5000 births per year and employs 178 (based upon the ratio of one midwife to every 28 births) whole-time equivalent midwives (UHS 2024). It was estimated that there was a pool of 50 early career midwives (ECMs) available for recruitment at the inception of the study. The maternity service, at the time of planning and through the research process, was facing exceptional pressures due to the COVID-19 pandemic. There were health and safety social distancing protocols in place at the maternity service that posed restrictions limiting face-to-face contact.

8.3.2. Eligibility Criteria

Participants registered with the National Midwifery Council (NMC) as midwives and had been in midwifery practice for no longer than five years from their registration.

Inclusion criteria

- ECMs with 0–5 years of experience, willing and able to give informed consent to participate in both phases of this study.

Exclusion criteria

- Midwives with more than five years of experience.
- Midwives who are unable to complete both phases of the study.

8.3.3. Sampling

This study applied a non-probability sample method from a purposive sample of ECMs. The purposive sampling method was chosen due to its ability to allow the selection of prospective participants whose qualities and experiences were relevant to the research inquiry (Parahoo 2014). The strategy was considered appropriate to achieve accessible participants who were

more likely to meet the eligibility criteria of the study. This non-probability sampling method was in accordance with the non-randomised quasi-experimental design, feasibility aims, and objectives of the research study.

Although the sampling pool was opened based on the eligibility criteria of the study to the midwifery staff within the maternity service, stakeholders were unable to support backfill for anyone not enrolled in the preceptorship programme. Although gatekeepers agreed that a purposive sample from the wider ECM staff would be eligible to be recruited to the study to ensure the sample size in both groups, they did not agree to backfill these midwives. This meant that any prospective participants not within the preceptorship programme would have to join the study on their own time. Another requirement from gatekeepers was that the intervention would be supported within the October 2021 maternity service's induction programme when newly appointed midwives were in their supernumerary period (six weeks).

Overall, the pool of the purposive sample remained open to the pool of ECMs in the maternity service. However, these restrictions exercised considerable limitations on the recruitment strategy planned by the researcher.

8.4. Recruitment and Participant Timeline

8.4.1. Recruitment Process

The pilot study incurred several delays in the preparatory phase due to the developing COVID-19 pandemic at the start of March 2020. The maternity service at the NHS site incurred many challenges with its staffing levels due to the viral contagion, which also included the researcher herself. Lockdowns were mandated twice in 2020 (March and June) and in January 2021. During this period, researchers and their studies were put on hold. In February 2021, stakeholders agreed that the recruitment would begin in May 2021 and the intervention would commence in October 2021.

During this time, the recruitment email and poster were sent to the midwifery staff at the maternity service site. This was to enable staff midwives to consult and contact the researchers for more information as needed, following the inclusion criteria of the study. ECMs who were interested in the study were sent the PIS, though the consent forms were only sent once the study was officially opened in October. Some midwives replied to the researcher to complain that the inclusion criteria excluded more experienced midwives. Several midwives who met the

inclusion criteria but were not in the preceptorship programme were disappointed that there was no backfill to enable them to join the study.

During this period there were further delays. The maternity service stakeholders were overwhelmed and decided that the recruitment pools of newly appointed midwives would be opened in their October intake, with the intervention beginning shortly after. Furthermore, the NHS Trust's Research and Development department (R&D) had accrued a significant backlog for studies put on hold during the height of the pandemic. Therefore, the pilot study was opened in October 2021. Due to the short notice, the ECMs that had shown interest in attending the intervention instead chose to participate in the control group. As the maternity service incurred its own recruitment challenges of staffing levels due to COVID-19 sickness, shielding, and attrition, there was a second pool of newly appointed midwives in December 2021 (six weeks from the prior recruitment pool). This would see a second run of the DBT-ST intervention to this group's prospective participants. However, the maternity service stakeholder had not planned to allocate the intervention within a further induction period. Therefore, this group would be required to attend the intervention programme on their own time.

8.4.2. Staggered Timelines and Synchronous Assessments

Staggered starts between research groups are not new in research. This approach is applied to stepped-wedge trial designs or multiple baseline designs in controlled trials, where separate groups receive the intervention at different time points while the control and intervention periods overlap in terms of repeated measures (Hussey and Hughes 2007; Rhoda et al. 2011). Although this pilot study did not use a formal design of this nature, the principle of delaying one group while still collecting repeated measures remains consistent with this established approach.

In behavioural and psychoeducational intervention research, including studies involving DBT-ST (see Chapter 4, Section 4.5), staggered start dates with synchronised assessment schedules are a well-established practice. This approach ensures that participants in both intervention and control groups are assessed at consistent time points relative to their participation, reducing the risk of measurement bias and enhancing the validity of comparisons. By adhering to rigorous timelines for data collection (e.g., baseline, mid-point, and post-intervention), this method enables flexibility in research design, particularly in non-clinical settings such as educational or professional development programmes, where participants may not be available simultaneously. Such designs support robust longitudinal assessments while maintaining the integrity of the intervention's evaluation. Each group of the DBT-ST pilot study recruited the DBT-ST group six

weeks before the control group. The majority of participants in both groups followed the same maternity service induction programme and six-week supernumerary status period followed by the same preceptorship programme at the research site. The synchronous scheduling of the repeated measures was adhered to (see Figure 8.4).

8.4.3. Recruitment of the Intervention Group

In October 2021, the available pool of newly appointed midwives underwent a face-to-face recruitment presentation with the choice to join the intervention or control group. The recruitment process was completed during the COVID-19 pandemic, adhering to the health and safety conditions in place at the maternity service. The researcher was invited for an hour during the first induction week of the preceptorship programme to present the study via a PowerPoint presentation, followed by a discussion largely based on the nature of the pilot study's aims and objectives. Prospective participants were informed that the intervention would be held online to minimise health risks, sessions would be recorded, and the researcher would facilitate the intervention. All documentation for the study was electronically based. No travelling would be required, and the researcher would show flexibility to reduce participant burden.

Prospective participants were given the opportunity to share their contact details to receive the PIS of the study and consent form for either the intervention group or the control group (Appendices 2, 3, and 4). The PIS and consent forms were sent via email, and prospective participants interested in enrolling in the study were required to return them via email, choosing the group in which they agreed to participate. Most of the prospective participants in this pool joined the intervention group. Shortly after this process was completed, the intervention commenced.

8.4.4. Recruitment of the Control Group

In December 2021, the researcher was once again invited to attend a one-hour meeting at the maternity service to present the study to another pool of newly employed midwives, in the same manner as the October pool. They were advised that the researcher would rerun the intervention programme for prospective participants who wished to attend this part of the pilot study on their own time. After the presentation, a discussion ensued, and prospective participants offered their contact details. The researcher emailed the PIS to those prospective participants. Due to the complexity and time management in their newly appointed positions, including the lack of backfill options to join the intervention, the prospective participants in this pool chose to join the control group. Therefore, the consent form for the control group was sent to these prospective participants.

The wider cohort of ECMs who had contacted the researcher in 2021 had already received the PIS. However, due to the delays, staffing shortages, and rota schedules, this group of ECMs also chose to join the control group and were sent the respective consent form.

At the end of this process, the study was able to recruit seven midwives to the intervention group and eight midwives to the control group. A total of fifteen midwives joined the study.

8.5. DBT-ST Intervention

The DBT-ST intervention delivered in this study represents Linehan's (2015a) DBT-ST manualised programme (Figure 8.3). This intervention was applied as a universal psychoeducational approach to a non-clinical population of ECMs. Unlike its applications in clinical and transdiagnostic contexts and settings, where DBT-ST addresses various mental health diagnoses, this intervention was adapted to a psychoeducational context by conveying the knowledge and skills within the context of midwifery clinical practice examples. The primary aim was to provide participants with tools to manage emotional regulation and stress in their professional roles, rather than to treat clinical symptoms.

The DBT-ST intervention (Figure 8.3) comprised six weekly sessions completed virtually with the intervention group (for the DBT-ST session plan, see Appendix 5). At the beginning of each session, time was allocated to review learning and experiences from the previous sessions. The virtual sessions were conducted on Microsoft Teams with participants joining via their professional email accounts. Each session began with consent to record the session before recording. Consent for recording the DBT-ST sessions was obtained at the point of consenting to participate in the study. Each session comprised a PowerPoint presentation created by the researcher based on the DBT Skills Training Manual (Linehan 2015b).

The researcher presented the sessions programme, applying the skills to midwifery practice. Participants were able to interact with the content of the presentation.

During each session, participants were able to partake in practice exercises, share opinions, and relevant experiences (not compulsory). After each session, the researcher emailed electronic copies of the module handouts pertaining to the completed session to participants. The handouts were copies of the DBT Skills Training Handouts and Worksheets (Linehan 2015b). It was hoped that participants would utilise these aide-mémoires to improve their learning and practice of each skill between sessions and to develop their DBT skills as they progressed their practices.

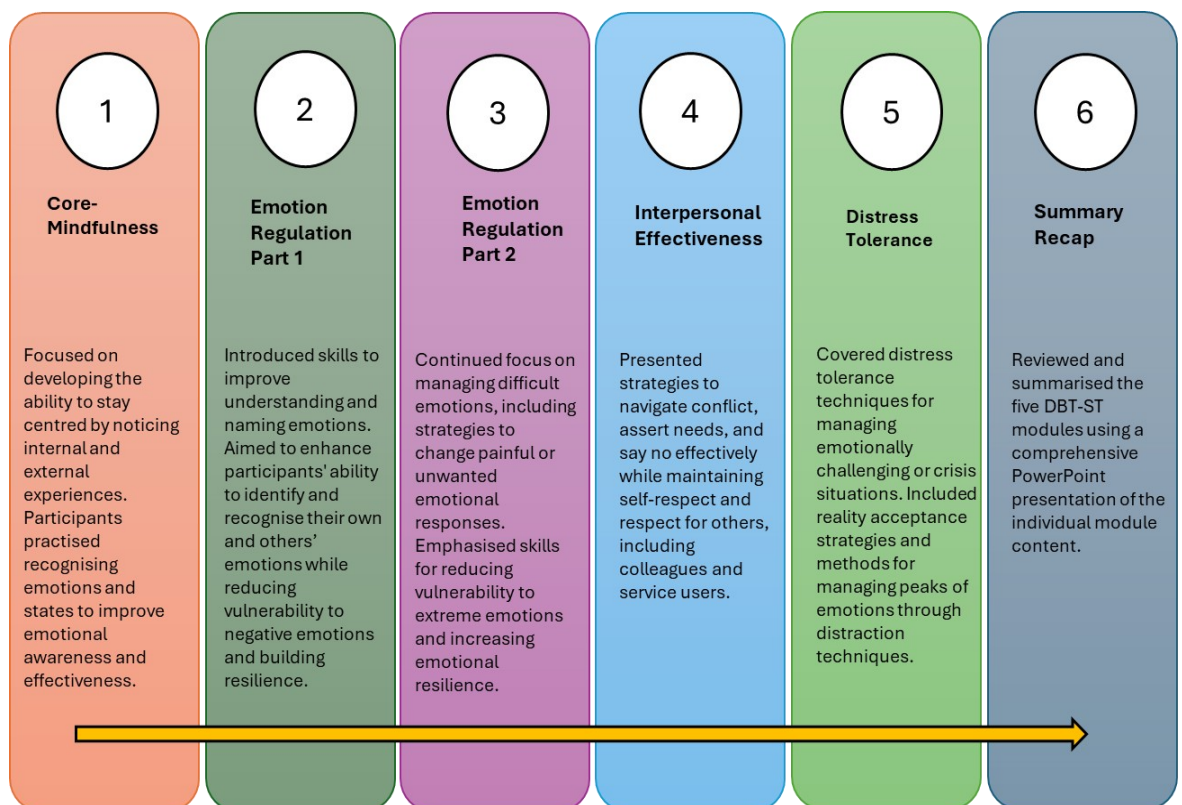


Figure 8.3: DBT-ST intervention sessions

8.5.1. Design and Delivery

The intervention was delivered over six weeks, with two-hour sessions conducted weekly. Although Linehan's original DBT-ST programme evolved over time as a transdiagnostic standalone intervention delivered across a period of twelve weeks, practitioners and researchers have applied various durations which can span between twelve to four weeks, including multiple modes of delivery (see Chapter 4). This pilot applied a psychoeducational curriculum approach. The duration was modified to accommodate the professional and personal schedules of the midwifery participants, and an online method was used due to the COVID-19 circumstances. Despite this reduction, all core modules of the DBT curriculum, including emotion regulation, distress tolerance, interpersonal effectiveness, and mindfulness, were faithfully adhered to. No elements of the programme were omitted, and the content was delivered in full to ensure fidelity to Linehan's model.

Each session was designed to integrate midwifery-specific examples and scenarios to contextualise the DBT skills in a way that would resonate with participants. This approach enhanced the relevance of the skills to the participants' professional environment and provided

practical illustrations of how DBT-based techniques could be applied in day-to-day midwifery practice. By doing so, the intervention remained accessible and meaningful to the participants, allowing them to connect the skills learned to their work-related challenges.

8.5.2. Modification to the Intervention

The DBT-ST curriculum itself was not modified. The sole adaptation was a reduction in the duration of delivery from eight to six weeks. This adjustment was explicitly made prior to study launch in response to gatekeeper requests, to ensure feasibility for participants who were simultaneously engaged in the induction programme. Consent reflecting this revised timeline was fully acknowledged and agreed before commencement. While this adjustment reduced the overall contact time, the intervention was not aimed as a psychotherapeutic treatment, as it was not applied as a transdiagnostic treatment for a clinical population.

Instead, this intervention was psychoeducational and aimed to educate ECMs to integrate DBT knowledge and skills to improve their well-being in practice. The intervention allowed for flexibility in how the material was presented. Midwifery practice scenarios were given as examples of where DBT skills might become useful. In contrast to a therapeutic setting, where a longer duration may be critical for sustained behaviour change, this intervention aimed to provide participants with skills and strategies that could be integrated into their personal and professional lives.

As discussed in Chapter 4, existing literature supports the use of various DBT-ST configurations, ranging from four to twelve weeks, in a transdiagnostic treatment context (Lee and Arora, 2023). As a psychoeducational intervention for non-clinical populations, the empirical evidence is not yet established. Although limited in this context, empirical evidence in the transdiagnostic perspective supports various durations and modes.

Psychoeducation for non-clinical populations is an intervention strategy based on providing information about specific content to ensure basic knowledge and competence. In clinical populations, psychoeducation interventions include therapeutic knowledge to support well-being and mental hygiene (Sarkhel and Aurora 2020). In this study context, the information was primarily about DBT skills and their possible usefulness. DBT-ST as a psychoeducational intervention is also consistent with other applications of DBT-ST as a universally applied curriculum (see Chapter 4, Section 4.5.4). The empirical evidence suggests that shortened and adapted versions of DBT-ST can still be effective in a variety of therapeutic, non-therapeutic, and educational contexts, supporting the modifications made in this study.

Therefore, while the intervention's length was reduced, the core principles of DBT-ST were maintained, and the modification is consistent with existing psychoeducational adaptations found in the literature.

8.5.3. Online Delivery

The DBT-ST intervention was delivered in an online format to accommodate the professional and logistical needs of the participants, including maternity service stakeholders in the context of COVID-19. Participant midwives, in this challenged context, faced competing demands which included their induction programme commitments. These competing factors may have made regular in-person attendance challenging. Therefore, the online recorded delivery mode offered greater flexibility, allowing participants to engage with the programme from various locations, reducing travel time, and enabling a more feasible participation schedule.

In addition to these practical considerations, the decision to conduct the programme online was informed by previous research demonstrating the efficacy of delivering DBT-ST in virtual formats. As addressed in Chapter 4, Section 4.5.10, numerous studies have successfully implemented DBT-ST interventions through online platforms. This indicates that the core principles and skills of DBT can be effectively taught and practised in a virtual setting. This aligns with the non-clinical, psychoeducational focus of this study, where the primary aim was the acquisition of practical skills rather than intensive therapeutic engagement.

While the online format presented certain limitations, particularly in terms of fostering group cohesion, strategies were employed to mitigate these challenges. The online conference style allowed for real-time interaction, which facilitated discussions and promoted participant engagement. Interactive discussions, reflective exercises, and opportunities for group sharing were emphasised to ensure active involvement throughout the sessions.

Overall, the online format was selected to balance the logistical demands of the participants and maternity services with the programme's goals. Although in-person delivery may have enhanced certain elements, such as group dynamics and direct face-to-face interactions, the flexibility and accessibility provided by the online mode made it the most appropriate choice for this intervention within the contextual environment at this time.

8.5.4. Facilitator of the Intervention

In the original study protocol, the intervention was to be facilitated by a DBT expert who would be supported by the researcher as the co-facilitator. With this in mind, in November 2020, the researcher completed a six-week online training package facilitated by the developer of the DBT-

ST programme, Marsha Linehan. However, several implementation challenges arose, particularly due to the ever-changing landscape of the ongoing pandemic. It was agreed that the researcher would facilitate the intervention programme instead of a hired DBT instructor. This decision was also based on the financial challenges and uncertainties about the exact dates the intervention would be scheduled. Booking an external professional DBT specialist under these conditions would prove problematic.

Instead, the researcher, having completed extra DBT Skills Training, combined with her psychological training and specialist midwifery knowledge, was considered by stakeholders as an appropriate alternative. Moreover, as reviewed in Chapter 4, Section 4.5.9 and 4.5.11, DBT Skills can be taught by various training expertise, including schoolteachers, at a universal level. Consequently, the intervention was designed as a psychoeducational approach, and the researcher, as a midwife with mental health training, was deemed to have sufficient expertise. Based on this rationale, the decision was made to proceed, and the researcher sought the appropriate HRA amendments (see Appendix 12).

8.5.4.1. Researcher's training

Before entering the PhD journey, the researcher was employed at the maternity service site as a specialist midwife in perinatal mental health for 10 years. In addition to her midwifery credentials, she completed a second Bachelor of Science with Honours in Psychology, in addition to a Postgraduate Diploma in cognitive therapy for severe mental health difficulties, and a Postgraduate Certificate in CBT. During this further training and within the context of her role, she also had an honorary contract with a psychiatric perinatal team. This allowed the researcher to engage in face-to-face therapeutic patient interventions, in addition to successfully completing her training.

These credentials, combined with her experience, allowed the researcher to gain entry and enrol in the developer's online DBT Skills Training course (Psychwire), where it was ascertained by the support team on this course that she could facilitate a DBT-ST intervention by successfully completing the course. After completing this six-week course, the researcher was awarded a certificate and 15 CE/CME credits (Appendix 14).

8.6. Data Collection

8.6.1. Quantitative Data Collection Tools

Data collection methods included a demographic questionnaire to gain background information on the participants in each group, which provided context for the base analysis of this study (Dobosh 2017). Additionally, five validated standardised measures (see Section 8.6.1) were applied to collect the baseline psychometrics pre-intervention. These repeated measures were originally planned to constitute three cycles as repeated measures: pre-intervention, immediate post-intervention, and three months post-intervention as a follow-up. However, due to the early termination of the pilot study, a repeated cycle of pretest and post-test was collected.

The rationale for choosing each measure is described in Chapter 5. All questionnaires were electronically sent to participants after the researcher received their e-consent forms. These measures were completed by all the participants in the DBT-ST group. As per the recruitment strategy required by gatekeepers (Section 8.4), the control group followed the same procedures after their recruitment six weeks later (Figure 8.4).

Once the researcher received the signed consent forms, both the DBT-ST and control groups were sent electronic formats of the first cycle of the standardised measures. In addition to the five measures, the DBT-ST group were also sent the University of Rhode Island Change Assessment Scale (URICA) to assess their readiness to change as a one-time measure. The length of time allocated to each cycle of repeated measures was two hours for all participants in the pilot.

Questionnaires are data collection tools applied in quantitative research that are structured and include standardised questions that are presented with pre-coded response choices designed to collect factual data for a study (Bowling 2002). Psychological questionnaires are standardised based on rigorous empirical research to create a reliable and validated tool to evaluate participants' performances (Groth-Marnat 2009) and are regarded as a strength in quantitative research.

This study aimed to investigate the efficacy of the DBT-ST programme in modifying the relationship between emotional labour and both burnout and difficulties in emotion regulation, particularly within the context of ECMs. Emotional labour is posited as a precursor to increased risk of burnout and emotion regulation challenges in this group. Additionally, the study sought to determine whether the DBT-ST programme could positively influence emotional intelligence and resilience amongst the participants. Therefore, the following standardised measures applied

in this pilot study are described below. Details of scoring and subscale descriptions for analysis are in Appendix 16.

Figure 8.4 illustrates the synchronous schedule of repeated measures for the staggered intervention and control groups in this pilot study. Each group began six weeks apart and followed an identical measurement schedule, with all measures repeated after a six-week interval corresponding to the length of the intervention. The exception was the URICA, which was administered only once to the intervention group at pre-test and not administered to the control group.

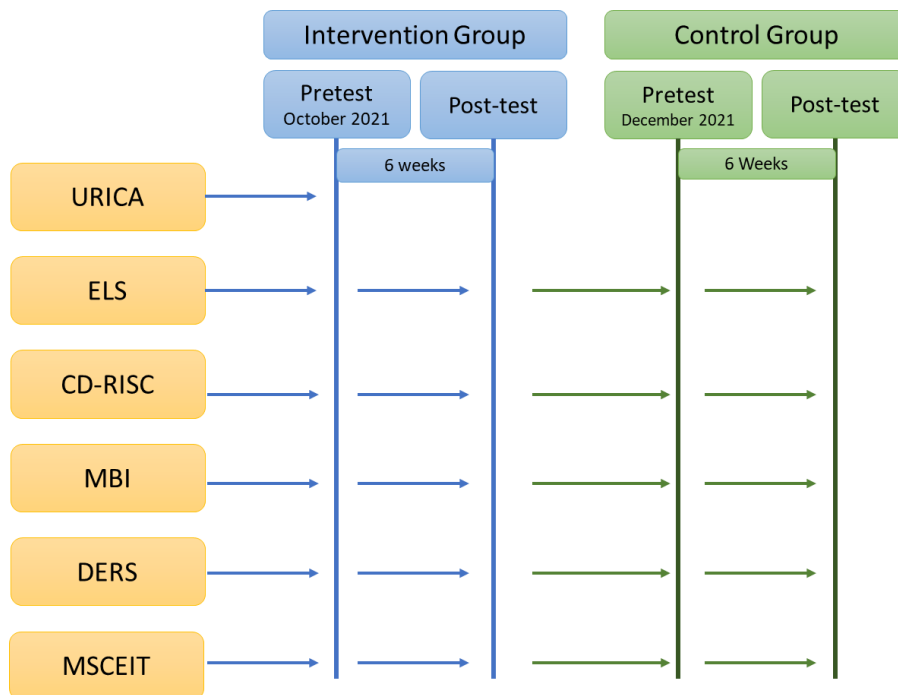


Figure 8.4: Standardised measures timeline and schedules for each group

8.6.1.1. Emotional Labour Scale (ELS) (Brotheridge and Lee 2003)

The Emotional Labour Scale (ELS) was developed by Brotheridge and Lee (2003) to assess how individuals manage and express emotions in alignment with organisational norms. It captures multiple dimensions of emotional labour, including surface acting, deep acting, frequency, intensity, and a variety of emotional displays. These subscales have demonstrated adequate internal consistency, with Cronbach's alpha values ranging from 0.74 to 0.91. Confirmatory factor analysis supports the scale's uni-dimensionality, with items loading onto their respective latent variables, validating its theoretical structure.

The ELS is a 15-item self-reported questionnaire that uses a 5-point Likert scale (1 = never to 5 = always) to measure facets of emotional labour during workplace interactions. Example items

include: “I pretend to have emotions that I do not really have” (surface acting) and “I try to actually experience the emotions that I must show” (deep acting). Higher scores on the ELS reflect greater emotional labour, which may correlate with occupational stress or dissatisfaction (Zapf 2002).

Although the ELS is widely applied in healthcare research, including nursing (Delgado et al. 2020), it has limitations as a self-reported measure. These include potential biases influenced by the respondent's mood or comprehension of the items. Additionally, critics (e.g. Grandey 2003; Grandey and Melloy 2017) argue that the scale may oversimplify the complexity of emotional regulation in naturalistic settings. Nevertheless, its robust psychometric properties and extensive use in occupational research make it a suitable choice for this study.

In this pilot, the ELS was administered as a repeated measure at baseline, mid-point, and post-intervention for both the intervention and control groups. The survey was distributed electronically and expected to take 5–10 minutes to complete.

8.6.1.2. The Difficulties in Emotion Regulation Scale (DERS) (Gratz and Roemer 2004)

The Difficulties in Emotion Regulation Scale (DERS), developed by Gratz and Roemer (2004), is widely used to assess emotional dysregulation across varying contexts. This multidimensional measure evaluates six facets of emotion regulation difficulties: (1) Nonacceptance of emotional responses (Nonacceptance), (2) Difficulties engaging in goal-directed behaviour (Goals), (3) Impulse control difficulties (Impulse), (4) Lack of emotional awareness (Awareness), (5) Limited access to emotion regulation strategies (Strategies), and (6) Lack of emotional clarity (Clarity). Respondents rate how often each statement applies to them on a 5-point Likert scale ranging from 1 (almost never) to 5 (almost always).

The DERS demonstrates strong psychometric properties, with a Cronbach's alpha of 0.93 for the overall scale and subscale reliabilities ranging from 0.80 to 0.89 (Gratz and Roemer 2004). Although some researchers argue that the DERS may not fully capture less conscious or automatic aspects of emotion regulation (Tull et al. 2007), it has been widely validated and is responsive to interventions targeting emotional dysregulation (Bardeen et al. 2012). Its utility extends to both clinical and non-clinical populations, making it particularly relevant for studies assessing emotional regulation and well-being.

In this pilot study, the DERS was administered as a repeated measure at baseline, mid-point, and post-intervention for both intervention and control groups. The scale is self-reported, takes approximately 5 to 10 minutes to complete, and was distributed electronically.

8.6.1.3. Emotional Intelligence Scale (MSCEIT) (Mayer et al. 2003)

The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) is designed to assess emotional intelligence as a set of four cognitive abilities: perceiving, facilitating, understanding, and managing emotions (Mayer et al. 2003). Unlike self-reported measures, which are subject to biases, the MSCEIT evaluates emotional intelligence through performance-based tasks. Scoring is conducted via an expert consensus approach, based on the input of 21 international emotion researchers, ensuring objectivity and reliability (Caruso et al. 2019).

The MSCEIT consists of 141 items across eight tasks that fall under the four emotional intelligence branches:

- Perceiving Emotions: Assesses the ability to identify emotions in oneself and others through visual stimuli, such as faces and artistic images.
- Facilitating Thought: Evaluates the ability to use emotions to support cognitive processes, such as decision making and sensory perception.
- Understanding Emotions: Tests knowledge of emotional blends and how emotions change over time.
- Managing Emotions: Measures the ability to regulate one's own emotions and influence the emotions of others.

The MSCEIT provides a global Emotional Intelligence Quotient (EIQ) score alongside branch-specific scores. It has strong psychometric properties, with Cronbach's alpha ranging from 0.80 to 0.93 and test-retest reliability scores between 0.86 and 0.92 over three weeks to four months (Brackett and Mayer 2003; Mayer et al. 2012). These features make it a robust tool for assessing emotional intelligence in both clinical and non-clinical populations.

In this pilot, the MSCEIT was administered remotely via a licensed testing platform. Participants accessed the test using their unique study Personal Identifier Number (PIN), and consensus scoring was performed by the licence holder. Data sets were securely shared with the researcher. The test takes approximately 35–45 minutes to complete and was used as a repeated measure for both intervention and control groups in the study.

8.6.1.4. Maslach Burnout Inventory–Human Services Survey (MBI-HSS)

The Maslach Burnout Inventory–Human Services Survey (MBI-HSS) was developed by Maslach and Jackson (1981) to assess burnout in professionals working in human services, such as healthcare and education. This version of the MBI specifically evaluates burnout through three subscales: Emotional Exhaustion (EE), Depersonalisation (DP), and Personal Accomplishment

(PA). Emotional Exhaustion, the core dimension of burnout, measures feelings of emotional depletion and stress from work (nine items). Depersonalisation assesses an impersonal or detached attitude toward others, reflecting a loss of empathy and increased cynicism (five items). Personal Accomplishment evaluates feelings of competence and achievement in one's professional role (eight items).

The MBI-HSS demonstrates good psychometric properties, with Cronbach's alpha values of 0.90 for EE, 0.79 for DP, and 0.71 for PA, indicating high internal consistency (Maslach et al. 1996). Construct validity is also well supported, with expected correlations to related constructs such as job stress and satisfaction. While factor analyses consistently uphold the three-factor structure, some overlap between EE and DP has been noted, indicating interdependence in some contexts (Schaufeli et al. 2009b; Cole et al. 2012).

This measure uses a 7-point Likert scale ranging from 0 (never) to 6 (every day) to capture the frequency of burnout-related experiences. Although self-reported, which introduces potential biases, the MBI-HSS remains a widely accepted tool for assessing burnout across various professional settings.

In this pilot, the MBI-HSS was administered as a repeated measure at baseline, mid-point, and post-intervention to both intervention and control groups. Participants completed the measure electronically, which took approximately 10 minutes.

8.6.1.5. Connor-Davidson Resilience Scale 25 (CD-RISC) (Connor-Davidson et al. 2003)

The Connor-Davidson Resilience Scale (CD-RISC 25) was developed to measure resilience, defined as the ability to "thrive in the face of adversity" (Connor and Davidson 2003, p.77). The scale is widely used in both clinical and general populations to identify resilient characteristics and evaluate the impact of interventions aimed at enhancing resilience. Its applicability across diverse contexts makes it a valuable tool for assessing resilience as a modifiable trait.

The CD-RISC 25 is a self-reported instrument consisting of 25 items rated on a 5-point Likert scale, ranging from 0 ("not true at all") to 4 ("true nearly all of the time"). Higher scores indicate greater resilience, with the total score ranging from 0 to 100. The measure has demonstrated good internal consistency (Cronbach's alpha = 0.89 in a general population sample) and strong test-retest reliability (0.87 amongst individuals with PTSD and GAD) (Connor and Davidson 2003).

Although the CD-RISC is effective in identifying resilient qualities, it does not assess the resilience process or theoretical underpinnings, which remain areas of scholarly debate. The authors

caution against interpreting resilience as a uniform ability, as it may vary across different contexts, such as workplace adversity versus interpersonal relationships.

In this pilot, the CD-RISC 25 was administered electronically as a repeated measure at baseline, mid-point, and post-intervention for both intervention and control groups. The test took approximately 5–10 minutes to complete.

8.6.1.6. University of Rhode Island Change Assessment Scale (URICA)

The University of Rhode Island Change Assessment Scale (URICA) is a widely used measure for assessing stages of readiness for change based on the transtheoretical model of change (Prochaska and DiClemente 1983; Hasler et al. 2003). This model predicts that an individual's stage of preparedness can significantly impact the success of therapeutic interventions, as a mismatch between intervention strategies and readiness levels may lead to poor outcomes. For example, individuals in the pre-contemplation stage may be less likely to engage actively in interventions (McConaughy et al. 1989). Readiness to change, encompassing attitudes, intentions, and behaviours, is a critical factor in fostering motivation and engagement in self-improvement processes.

The URICA consists of 32 self-reported items and measures four stages of change: (1) Pre-contemplation, (2) Contemplation, (3) Action, and (4) Maintenance. Responses are given on a 5-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The scale demonstrates good internal consistency, with Cronbach's alpha values of 0.79, 0.84, 0.84, and 0.82 for the four subscales, respectively (McConaughy et al. 1989).

In this pilot, the URICA was administered pre-intervention to the intervention group only, as advised by a DBT expert consultant. This decision was informed by the need to assess participants' readiness for change as a motivational factor influencing intervention outcomes. To minimise participant burden, the URICA was not administered to the control group. Ethical approval was obtained for this modification (Appendix 12). Participants in the intervention group completed the URICA electronically via Microsoft Forms prior to the intervention, taking approximately 5 to 10 minutes to complete.

8.7. Method of Analysis

Statistical analysis was performed using SPSS (version 28, IBM 2020) software. Descriptive statistics were utilised to summarise the sample characteristics and to assess the impact of the

DBT-ST intervention on participants. The statistical analyses were conducted in collaboration with a statistician under the guidance of the supervisory research team.

The demographics data included age, years of experience, marital and family composition, banding (salary category), practice specifications, and type of shift work (see Appendix 6). This data served two purposes: to provide a comprehensive description of the participant sample and to facilitate the integration of data within the mixed methods design of the study, as recommended by Clark-Carter (2018).

Data collection was facilitated through electronic Microsoft Forms for all measures except the MSCEIT, which was processed directly by the licence holder, Multi-Health Systems (MHS). Data from the forms were automatically transformed into Excel spreadsheets on the university server. The data for each measure were then transformed and scored according to the manualised instructions provided by the developers and licence holders. The MSCEIT dataset was downloaded onto the university server after processing by MHS.

For the five repeated and scored measures (ELS, MSCEIT, DERS, CD-RISC, and MBI), the Analysis of Covariance (ANCOVA) was chosen as the primary statistical method. ANCOVA was employed to control for potential confounding variables and to improve the reliability of the results by adjusting for baseline differences. This decision was taken on the basis that there were missing datasets after the pretest (two in the intervention group and one in the control group) which limited the data for the follow-up post-test. ANCOVA allows for the control of pre-existing differences at baseline, which is essential in studies where equivalent groups cannot be guaranteed at the outset. By controlling for variance related to possible covariates, the ANCOVA can enhance the statistical power, thereby increasing the sensitivity to detect the true effects of the intervention.

Prior to conducting the ANCOVA analysis, preliminary tests were conducted to identify if there was a relationship between the groups and pretest scores to be able to consider the use of the pretest as the covariate (dependent variable). The next step was to ensure that the assumption of homogeneity of regression slopes was met. This was essential to validate that the relationship between the covariate and the dependent variable was consistent across groups. The pre- and post-test data collected were analysed to determine if there were statistical differences between the intervention and control group in terms of their pre- and post-changes as well as the differences between each treatment group. Once these preliminary tests were completed and were not statistically significant, the full factorial ANCOVA was conducted. In all analyses, the significance level was set to a maximum of $p \leq .05$. This was followed by further visualisation

through scatterplots of the linear relationship between the covariates and the dependent variable for each level of the independent variable.

Each analysis was carefully conducted to ensure rigorous handling of data and adherence to the assumptions of the chosen statistical tests. The use of ANCOVA, supported by empirical evidence and statistical theory, provided the framework for examining the effects of the DBT-ST intervention on the emotional and psychological well-being of the participants.

8.7.1. Validity and Reliability

A major aim of the use of mixed methods research is to enhance the validity of the research (Onwuegbuzie and Combs 2010). However, “research is not linear but dynamic and interactive” (Tobin and Begley 2004, p.391), especially in real-world contexts where complexities can arise. Quantitative methods and qualitative methods help to corroborate, enhance, and elaborate during the data collection processes.

Validity in research is dependent on how robustly the data collection and process of analyses have been conducted (Parahoo 2014). Reliability is found within the data collection measures consistent through time and responses (Heale and Twycross 2015). Validity and reliability are ensured through both the research process and the selection and application of quantitative instruments.

The underlying principle of qualitative validity lies in demonstrating trustworthiness, utility, and dependability throughout the research process (Lincoln and Guba 1985; Smith and Noble 2014). Whereas quantitative methods establish rigour through statistical procedures, qualitative approaches must show rigour through the transparency, consistency, and reflexivity of the research process. This study was designed to meet these criteria in the qualitative phase of the mixed methods design, which combined quantitative and qualitative methods to enhance the credibility and validity of findings. However, due to unforeseen challenges during data collection, and in line with the pragmatic emphasis on adapting to “what works,” the researcher modified the planned qualitative strategy. In response, field notes and a reflexive approach were employed to capture and interpret the evolving research context. While these methods are sometimes viewed as less structured, they contributed to the study’s trustworthiness by providing an authentic account of the research process and its practical constraints (see Chapter 10, Section 10.12.5 for critical reflection).

Tobin and Begley (2004) argued that the concept of rigour in qualitative methods is less appropriate than the essence of goodness, which is rooted in the research process and reflects

the quality of a study. Yet research can be considered a form of social participation that incorporates unexpected challenges arising in the field in which the researcher operates (Hughes et al. 2021). In this context, the concepts of validity and reliability from the quantitative strand of the study emerged as dominant, rather than being afforded equal status as initially planned. As the study progressed, the qualitative principle of trustworthiness, alongside the concept of goodness, required the use of compensatory strategies to ensure that qualitative insights meaningfully contributed to assessing the feasibility of the study protocol.

8.8. Data Management

8.8.1. Procedures and Considerations

8.8.1.1. Data protection and participant confidentiality

The researcher and the supervisory research team complied with the requirements of the Data Protection Act 1998 and the General Data Protection Regulation (GDPR) 2018, with regard to the collection, storage, processing, and disclosure of personal information, and upheld the Act's core principles.

A robust data management plan was developed before the commencement of the study. It was developed to ensure the safe and secure collection, transfer, and storage of data (see Appendix 10).

Personally identifiable data collected during the study were stored electronically on the sponsor's secure encrypted and password-protected server. All data collection from participants was de-identified via a unique PIN after the consent process was completed. The PIN Key (code breaker) was stored on the university server in a separate file from the research datasets. Data collection procedures of Phase 1 were completed via PIN only. Data collection procedures of the online recording of the intervention sessions were filed separately from the research datasets.

Data collected from participants was completed via Microsoft Forms online, sent via email to each participant from the university server. These correspondences were completed via an encrypted password-protected university-issued laptop. The laptop runs remotely with the university's secure server. The researcher did not use this device in public areas, nor share it with non-university staff, nor was it left unattended. All necessary information in this study was appropriately stored and managed by the university. The data and information held on the laptop would be erased according to university data management procedures for doctoral studies.

During the research study period, identifiable data were stored on EDGE and the sponsor's secure server to be accessible by the researcher and the research supervisory team for monitoring and auditing purposes.

At the conclusion of the study, the identifiable data will remain on EDGE and the sponsor's secure server until the researcher is awarded the degree. After completing the Viva Voce of the PhD thesis, the audio files will be destroyed. The research data files will be stored on the sponsor's secure server for no less than 5 years after the awarded degree to the Chief Investigator. Moreover, this study included a robust risk management plan (Appendix 9).

8.9. Ethical Considerations and Risk Management

8.9.1. Ethical Principles and Approvals

This study was overt, with no deception involved. All aspects of the research aims, objectives, and procedures were communicated to participants before recruitment, enabling them to make a fully informed decision about participation. Participants were assured of their right to withdraw at any stage before the publication of the study. Ethical principles of confidentiality, anonymity, and privacy were upheld through robust data management practices aligned with the University and NHS ethical guidelines. Confidentiality involves protecting participants' information by anonymising identifiable data during transcription and assigning pseudonyms or participant identification numbers (PINs) to ensure privacy (Coffelt 2017). Anonymity was further ensured by eliminating any identifiable features that could link responses back to individual participants (Polit and Beck 2012).

Ethical approval is of the utmost importance in safeguarding the well-being of participants. The Nuremberg Code (1947), the Declaration of Helsinki, and the Belmont Report established ethical principles that must underpin research that involves human participants (Polit and Beck 2014). The four key principles are: respect for autonomy, non-maleficence, beneficence, and justice (Polit and Beck 2014). Ethical principles for Phase 2 of the study had been fully developed; however, this phase was not implemented due to challenges encountered in the field.

All appropriate governance and compliance approvals were gained before the start of the study and a copy of the approved study documents submitted to Bournemouth University supervisory team and clinical governance officers. Ethical approval was gained through Bournemouth University's Ethical checklist and the Health Research Authority (HRA) via the online Integrated Research Application System (IRAS) (see Appendix 1, Appendix 11 and Appendix 8).

After the stakeholder meeting in February 2021, the changes required were submitted to the HRA via the IRAS portal (see Appendix 12).

8.9.2. Regulatory and Professional Considerations in Research Practice

The concept of confidentiality is an integral part of the standards and code of practice for midwives. Confidentiality is therefore a professional obligation. However, it can be broken in the interests of patient and public safety (NMC 2018). The ethical role of the researcher to maintain anonymity and confidentiality can pose challenges to practitioners who are also researchers (Houghton et al. 2010). This dual role can present conflicts of interest between the research ethics and a midwife's ethical duty of care. However, the risk can be mitigated by prior preparation for this eventuality within the research protocol (Ryan et al. 2011). The study protocol, including the risk management plan, data management strategy, and PIS, were reviewed and approved by both the university ethics committee and the Health Research Authority (HRA). All participants were made aware of the researcher's dual role as both a midwife and a researcher during the consent process.

8.9.3. Anonymity, Confidentiality, and Informed Consent

Informed consent is central to research ethics (Doughty and Ménage 2022). This normally entails the rights of participants to make their choices voluntarily, without coercion, based on information provided by the researcher. Once informed consent had been given, there was no obligation for participants to engage in the research as they could withdraw at any time. In this study, participants gave their informed consent based on full disclosure of the study's aims, objectives, timeline, and future study aspirations. This was completed via PowerPoint presentation and discussion led by the researcher, using the Participant Information Sheet (PIS) and consent form information. The researcher abided by the principle of autonomy including informed consent, anonymity, confidentiality, and data protection (Whiting 2008).

Voluntary participation is a cornerstone of informed consent. Appelbaum et al. (2009) argued meaningful choices were based on information, competence, and voluntariness, but that recruitment approaches can become problematic to voluntary consent. Ethical obligations for informed consent indicate that it should be given without coercion, undue influence, or pressure. Voluntariness is a condition of autonomy. "A decision is presumed to be voluntary if no evidence exists that someone else has unduly influenced it or coerced the person deciding" (Appelbaum et al. 2009, p.32). Although coercion and undue pressure are likely to be voluntarily unethical based on established ethical guidelines, less obvious pressures can exert influence over decision making. For example, persons of authority in hierarchical institutions, situational constraints,

organisational culture, and altruism are also factors that can exert pressure on whether to give consent (Appelbaum et al. 2009; Kass et al. 2015). However, Bull and Lindegger (2011) contended that, despite external influences, participants' subjective experiences of voluntariness are central. Nelson et al. (2011) argued not all influences are controlling and some are even welcomed by individuals. Persuasion and information, unlike coercion and manipulation, are consistent with voluntariness (Nelson et al. 2011).

During the recruitment process, the researcher emphasised the voluntary nature of participation in this study. Despite constraints from gatekeepers limiting access and resulting in the majority of the recruitment pool being composed of newly appointed cohorts of midwives, the researcher made every effort to ensure the choice to enrol in the study was on a voluntary basis. Those midwives who chose not to join the study were able to continue the preceptorship programme as planned by the maternity service. Once participants signed their e-consent forms via email, they retained the PIS as a link within their consent forms (see Appendix 3 and Appendix 4).

An integral component of the consent process was participants' ability to withdraw from the study at any time (Parahoo, 2014; Johnson et al., 2016). This right was explicitly communicated during recruitment and reiterated in meetings with participants from both groups. Interestingly, no participants in this study exercised their right to withdraw, despite some challenging exchanges during the final meeting with the intervention group. Emails from the researcher, which restated the option to withdraw, were not answered. As the study included 15 participants, a datasheet with PINs was used to monitor engagement and informed the researcher's field notes. These notes were used solely for reflexive purposes and contributed to the researcher's critical reflection on the process.

Saks et al. (2002) suggested that gaining consent for control groups requires the same attention to information sharing as for the intervention group. In this study, the same presentation was given to both groups of prospective participants. Prospective participants were aware that the element of practising, as usual, was an important baseline for comparison to the intervention group.

Based on ethical principles of beneficence, maleficence, and justice, the PIS provided participants with the purpose of the study, its specific aims, and potential benefits. The PIS informed participants of the commitments required for involvement in the study. It was reiterated that participants could withdraw at any point in the study and that personally identifiable data would be de-identified and securely managed.

The principle of beneficence is the obligation of researchers to respect human dignity and do no harm (Polit and Beck 2012). Non-maleficence is the obligation of a researcher to minimise harm (Parahoo 2014). Due to the intervention's emotional focus, it was important to explain the modules and session content during the recruitment phase, and the researcher had made a concerted effort through a comprehensive risk management plan to mitigate any eventuality of harm to participants. Justice requires the researcher to be fair to the needs of participants and this is despite the priorities of the research aim and objectives of the study. The researcher made considerable efforts through flexibility to ensure that protocol procedures had the least possible impact on participants. This was of high importance given the shared understanding of the professional and situational challenges in both the profession and the COVID-19 pandemic.

8.9.4. Risk and Burden on Participants

The structure of the intervention involved a considerable time commitment from participants, consisting of six sessions (each two hours long) for the DBT Skills Training and repeated measures assessments at three time points, also taking two hours each. This considerable burden on participants raised concerns regarding potential fatigue and its impact on the reliability of the data collected.

As reviewed in the strengths and limitations of quantitative measures in Chapter 7, Section 7.3.5, overburdening participants can be an ethical concern. Mixed methods research designs have been highlighted as particularly linked to possible burdens on participants. The strategies to reduce participant burden should be considered in each study design. Nevertheless, despite taking careful measures to reduce this burden, participants may continue to disengage. This phenomenon is not particular to this study. However, this study was conducted within the context of the COVID-19 pandemic. The maternity service research site was significantly affected by staff shortages. Ambient fear and worry over the past year were palpable in the atmosphere of this service. Underlying tensions and fatigue were prevalent in the masked faces of staff midwives in hallways. There was no doubt from the researcher's standpoint that, despite the efforts to mitigate participant burden within the study, participants would be impacted by multiple factors apparent in this challenging environment.

To mitigate participant fatigue and enhance data reliability, several steps were taken. First, the scheduling of the repeated measures assessments was planned to minimise overlap with the intervention sessions, allowing participants adequate time between data collection and training sessions. Second, the repeated measures assessments were spread out throughout the pilot,

ensuring that participants were not overwhelmed by excessive data collection at any single time point.

However, due to the circumstances in which the study was conducted, outcomes and their reliability cannot be solely reflective of the DBT-ST intervention. When participants are overloaded or overwhelmed, they may provide random or less accurate responses, simply to complete the task or give automatic or unreflective answers, undermining the reliability of the data (Ampt 2003; Andrew and Halcomb 2009). Burdened participants might also rush through measures or answers, especially if they are less invested in the study, and can introduce bias in the data. These problematic challenges for researchers are again not particular to this study, as discussed in Chapter 7, Section 7.3.5. However, this study was significantly affected by this phenomenon.

It could be considered that the researcher personally negatively affected this phenomenon. Nevertheless, the researcher made every effort to engage participants empathically, understanding their professional circumstances. Participants were also given instructions about the importance of accuracy in their responses, and efforts were made to ensure that the measures used were not overly burdensome or repetitive. Despite these efforts, it is acknowledged that participant fatigue could have influenced the reliability of the data, particularly in the later stages of the pilot. This limitation is recognised, and caution is exercised when interpreting the results, particularly where lower response rates or signs of fatigue may have affected the outcomes.

8.9.5. Researcher's Influence

The researcher worked for the past ten years in the maternity service and in the hospital setting where recruitment took place. The researcher acknowledged her positional effect from her former role as a specialist in mental health and working relationships with ECMs. Recruitment of peers can represent certain ethical challenges (McDermid et al. 2014). Colleagues and peers may feel compelled to respond in a socially desirable manner, leading to response bias driven by concerns about judgement and confidentiality. The researcher was mindful of her role and prioritised participants' confidentiality and privacy. Furthermore, the researcher was trained in cognitive therapy and cognitive behavioural therapy and has developed an understanding of how to manage interpersonal and therapeutic relationships. With this knowledge and experience, the investigator was well-positioned to ensure participants were reassured and secure.

8.9.6. Mitigating the Power Imbalance

Nevertheless, power imbalances between the researcher as a specialist midwife and newly qualified midwife participants may have posed potential ethical concerns in this study. To mitigate this, several strategies were employed to create a neutral and supportive environment. Firstly, participation in the intervention was entirely voluntary, and it was emphasised that there were no professional repercussions for choosing not to participate. Information sheets and consent forms made it clear that participants were free to withdraw from the study at any time without explanation or consequence.

During the intervention, particular attention was given to the facilitation process to ensure that all participants, regardless of their seniority, had equal opportunities to engage and contribute. As the facilitator, the researcher encouraged open discussions while being mindful of avoiding any situations that could create an imbalance in contributions or influence. The sessions were structured to foster collaborative learning, where each participant's experiences and reflections were equally valued, irrespective of their professional rank. This helped to minimise any undue influence that a more experienced midwife might have exerted on newly qualified midwives during group discussions.

8.9.7. Ethics and Potential Bias in Delivering and Assessing the Intervention

An important ethical consideration which may have introduced the potential for bias was the dual role of the researcher as both the facilitator and assessor of the intervention. To minimise this bias, several steps were taken. Firstly, the assessment tools used were standardised, validated instruments, ensuring that the evaluation of outcomes was based on objective, widely accepted measures rather than subjective interpretations.

In addition, participants were reminded of the confidentiality and anonymity of their responses, which helped to reduce any pressure they might have felt in their responses within measures that the researcher may potentially see. Furthermore, the researcher took care to maintain professional boundaries during the facilitation, emphasising the participants' agency in their own learning and skill acquisition. This approach aimed to reduce any unintentional influence the researcher might have had on participant responses during assessments. To enhance objectivity, the analysis of the data was conducted after the intervention was completed. This separation between the roles of facilitator and analyst helped to mitigate the potential for bias in interpreting the findings of the study.

Another influencing factor may have stemmed from the researcher's own investment in the DBT-ST intervention. This enthusiasm may have contributed to heightened expectations of its effectiveness and the unintentional over-emphasis of certain DBT skills, potentially influencing participants' experiences or learning outcomes. Additionally, it is possible that some participants perceived the researcher's dual role and subject expertise as positioning her in a place of authority, which may have influenced their responses. Such perceived power dynamics can contribute to expectation bias, particularly if participants feel inclined to respond in ways they believe align with the researcher's values or expectations (Rosenthal and Rubin 1978).

8.9.8. Social Desirability and Power Dynamics

As the facilitator and representative of stakeholder-supported research, participants might have felt pressured to respond in socially desirable ways to engage in the study. Social desirability bias occurs when participants provide responses they believe will be viewed favourably, rather than reporting their true experiences (Bergen and Labonté 2020). It is possible that, following the completion of the intervention, some participants viewed their involvement in the associated power dynamic as concluded. This perception may have reduced their motivation to engage fully with the post-intervention assessments.

The DBT-ST intervention was well attended overall, with only one participant dropping out due to clinical staffing demands. However, difficulties arose during post-intervention data collection, particularly in completing the third and final cycle of repeated measures. Due to insufficient participant engagement in this final cycle, the data collected was excluded from the analysis. Consequently, the study design was reduced to a pre-test and post-test format, which allowed for more robust data collection at these two points. This adaptation preserved the integrity of the data collected earlier, although it limited the longitudinal assessment of the intervention's impact.

8.9.9. Online Delivery and Internet-Mediated Ethics

COVID-19 restrictions saw the intervention completed online via the Zoom portal and then moved to the TEAMS portal due to technical difficulties. All questionnaires were completed via Microsoft Forms and sent via email from the university server to the maternity service server. The British Psychological Society (2021) on ethical guidelines for internet-mediated research highlighted key principles that were relevant to the study's context, including principles of confidentiality and security of online data, obtaining valid consent, anonymity, and public-private domain distinctions.

Online research, as with face-to-face research, presents ethical considerations. Engaged web-based research that is susceptible to interactions with participants places the researcher in the research context as an active observer (Williams 2012). Regulatory and professional considerations in research practices were highlighted in this study context.

The DBT Skills Training intervention was delivered in an online format to accommodate the professional and logistical needs of the participants. As midwives, the participants faced demanding schedules and work commitments, which made regular in-person attendance challenging. The online delivery mode offered greater flexibility, allowing participants to engage with the programme from various locations, reducing travel time, and enabling a more feasible participation schedule.

The online format was selected to balance the logistical demands and health restrictions of the COVID-19 pandemic with the programme's goals. Although in-person delivery may have enhanced certain elements, such as group dynamics and direct interaction, the flexibility and accessibility provided by the online mode made it the most appropriate choice for this intervention.

In addition to these logistical considerations, the decision to conduct the programme online was informed by previous research that demonstrated the efficacy of delivering DBT-ST in virtual formats. As addressed in Chapter 4, Section 4.5.10, numerous studies have successfully implemented DBT-ST interventions through online platforms. This indicated that the core principles and skills of DBT can be effectively taught and practised in a virtual setting. Moreover, this approach aligns with the non-clinical, psychoeducational focus of this study, where the primary aim was the acquisition of practical skills, rather than intensive therapeutic engagement.

While the online format presented certain limitations, particularly in terms of observing non-verbal cues and fostering group cohesion, several strategies were employed to mitigate these challenges. For instance, the video conference technology allowed for real-time interaction, facilitating discussions and participant engagement, and ensuring that participants remained actively involved in the learning process. Nevertheless, there remained limitations to the levels of engagement that online formats can offer, such as roleplay and lack of ability from the facilitator to dynamically engage participants.

In this pilot study, the online format was selected to balance the logistical demands of the participants with the programme's goals and health restrictions during the ongoing pandemic. Although in-person delivery may have enhanced certain elements, such as group dynamics and

direct interaction, the flexibility and accessibility provided by the online mode made it the most appropriate choice for this intervention.

8.9.10. Procedures that Have a Low Risk of Activating Emotional Memories

A risk management plan was developed via the university's online Risk Assessment Tool to consider and manage physical, mental, emotional, and social harm to participants and researchers. This plan's aim was to be applied to any event that may have ensued during the procedures in this study (see Appendix 9).

There were no predictable physical risks to participants in this study because the intervention's main focus was on improvements in emotional well-being. However, there may have been a low risk of activating emotional memories that could cause emotional distress in some individuals (LeDoux 1992; Singer and Salovey 1993; Dobbin and Ross 2019).

Phase 1 of the study included completion of the identified scales which was communicated to each participant, followed by the intervention. As both elements were situated around participants' emotional well-being, to ensure safeguarding concerns were addressed in a timely manner, the researcher was attentive to participants who could have disclosed mental health concerns. The maternity service support structures such as Professional Maternity Advocates and the preceptorship team were available if desired by participants. If participants had disclosed emotional difficulties, the researcher would have considered signposting them to their GP and psychological services. If the nature of the disclosure were linked to intentions of harm to self, the researcher would have informed the participant of their obligation to share the information with the participant's GP and implement adult safeguarding guidelines.

Any disclosed information liable to lead to potential harm to participants or others would be disclosed to the appropriate onsite hospital services. The researcher would have informed the participant of intentions to disclose information, if safe to do so.

8.10. Strengths and Limitations

8.10.1. Strengths and Weaknesses of the Quasi-experiments

In clinical, psychological, and educational research, causal inferences are important to evaluate therapeutic measures and interventions. Quasi-experimental research designs are frequently applied when the randomisation of samples is not logistically feasible or ethical to evaluate the efficacy of an intervention (Harris et al. 2006). This experimental approach, often referred to as

a pre-post intervention, aims to establish the cause and effect of an intervention. As with all experimental research, researchers must rule out alternative causes for their outcomes. This is achieved by minimising threats to internal validity and reducing the influence of bias (Slack and Draugalis 2001), meaning that, without internal validity, outcomes can be the result of a variable other than the intervention. According to Kim and Steiner (2016), unlike randomised control trials that rely on the fewest and weakest assumptions, quasi-experiments must endeavour to surmount these disparities to reduce confounding variables that pose threats to validity.

However, quasi-experiments are quite strong in controlling for threats to external validity because of the real-world setting. Peters et al. (2013) stated that “implementation research seeks to understand and work within real-world conditions, rather than trying to control these conditions or to remove their influence as causal effects” (p.1). The DBT-ST programme is an evidence-based intervention that is well-established in the field of psychology. Its recent expansions involving its universal application to new populations in real-world contexts are gaining popularity amongst researchers across the globe (Mazza et al. 2016). Although this study is congruent with the contexts of DBT interventions in other studies conducted in real-world settings, external validity can be threatened by selection biases due to its lack of randomisation.

Quasi-experiments do not generally apply randomisation strategies to groups which has been recognised as a weakness (Harris et al. 2006; Zwarun 2017). However, researchers can include components within their designs to increase external validity and decrease selection bias by the incorporation of a comparison group as a control. These non-randomised groups are referred to as non-equivalent control groups that are aligned with the treatment group protocol. This design feature is referred to as a between-subjects design. However, because participants are not randomly assigned to each group, there is a risk that there are differences between groups which can create threats to the internal validity. The principle in experimental designs is to aim for equivalency between groups to attempt to balance the covariate distribution and limit confounding variables that can threaten the inference of causality (Zwarun 2017). If there are differences between groups, then it is difficult to determine whether the results are attributable to the intervention. Therefore, it is important to select samples with as much specificity as possible.

This study applied a quasi-experimental design that included a control group with pre, post-tests and follow-up, with an aim to limit threats to validity. The participants were from the same profession and followed an equivalent trajectory of midwifery practice. A demographic questionnaire collected marital, familial, and professional practice factors to evidence the

comparability between groups of midwives. The newly employed midwives were in two separate intakes, but they could have been in the same cohort had the intake and preceptorship programme recruited them together on the same date. Nevertheless, the two separate pre-existing groups during recruitment were offered the same options to join the study (see Section 8.4).

Although the professional profiles and contexts of participants were closely matched, factors of psychological differences between the groups remained unknown at the point of selection. Matching the difference between groups, the researcher would have assessed the pre-test measurement to determine whether there were group differences before the intervention. If the pre-test assessment had identified differences, the researcher would have had to proceed with individual-paired matching between groups and assign those participants to each group, thus reducing confounds to better determine the effect of the intervention (Zwarun 2017). However, in this study, the analyses of the collected data at the pretest were not examined before proceeding with the intervention due to the limited time between the data collection and the intervention. Consequently, this may have affected the internal validity of the study and the outcomes of the intervention.

Improvements in the internal validity of a quasi-experiment can also be made by selecting valid and reliable instruments that were developed for the purpose and population for which the instrument was initially developed (Creswell and Plano Clark 2018). This study sought to address these improvements by implementing a replicable protocol for measurement procedures that are consistent and grounded within the theoretical framework (Chapter 5). The measures chosen for this study had established content validity and aimed to improve internal validity. Standardised validated measures selected in this study included five separate questionnaires that were repeated in both groups, which took approximately one and a half hours to complete (see Section 8.6).

This study highlights both strengths and limitations inherent in its mixed methods quasi-experimental design. The incorporation of the DBT-ST programme, an empirically supported intervention with a robust evidence base, is a key strength of this research. The flexibility and adaptability of the DBT-ST model, including its effective application in online modes of delivery, is well supported by existing literature, suggesting that this was an appropriate choice for the study's aims. Despite this, the possibility remains that face-to-face delivery could have enhanced participants' engagement and skill acquisition. The researcher made concerted efforts to develop a sound protocol and management plan, ensuring that the study adhered to methodologically

rigorous standards. However, the challenges encountered during the study highlight opportunities for improvement in future iterations.

Significant limitations were rooted in the logistical and operational challenges encountered during the research process. The COVID-19 pandemic imposed severe delays and increased pressure on maternity services, complicating recruitment efforts and placing additional strain on midwifery staff already facing systemic understaffing. These factors resulted in recruitment challenges that saw the majority of preceptors and newly appointed midwives recruited to the study (Section 8.4). These participants had competing pressures which may have exerted further burdens that likely contributed to participant attrition and engagement difficulties, particularly during the latter stages of the study. Furthermore, the COVID-19 pandemic resulted in major delays and rescheduling of the study because the maternity services were under exceptional pressure, which caused uncertainties in timely planning to enact the study. For the staff midwives at the research site who were already recognised to be under systemic staffing pressures, the pandemic only increased their burdens. Another logistical limitation was the researcher's health complications and the narrowing PhD timeline, which further hindered the ability to fully complete the planned second phase of the study, including qualitative interviews that might have yielded deeper insights. For instance, had the researcher had more time available, despite the reticence of completing the third cycle by some participants, others may have agreed to move to the qualitative interview of phase 2. With these combined contextual circumstances, it can be argued that conducting this study under these conditions created limitations to the processes planned in this MMR design. Although MMR designs have been identified as more burdensome than other designs (Creswell et al. 2011), this study cannot associate these operational and logistical limitations solely with its design.

An additional limitation arose from the premature ending of the pilot, which necessitated a shift in data collection methods. The original plan to conduct semi-structured interviews, designed to explore the acceptability of the intervention and the applicability of DBT skill sets to midwifery practice, had to be abandoned. These interviews would have provided valuable in-depth insights into participants' subjective experiences, including their perceptions of the intervention's utility and other strategies they felt were necessary for improving their well-being. Instead, the researcher provided a critical reflection, drawing on subjective experiences of conducting the pilot, facilitating the intervention, and observing participant engagement. While this reflection provided meaningful and multifaceted insights into the feasibility of the intervention and areas for improvement, it did not offer the diversity of perspectives that direct participant interviews would have captured. This shift represents a limitation but also highlights the value of reflexivity

in navigating the complexities of real-world research contexts. Critical reflection remains a valuable source of contextual and process-oriented insights.

The intensity and frequency of the repeated measures possibly gave rise to operational limitations that may have been preventable. Particularly, the length of the cycles may have incurred overall limitations in the study's already challenging context. Yet, the inability to complete the full planned MMR design limited the potential to gather meaningful qualitative inferences to support or reject these assumptions. Rather than the limitations of the quasi-experimental design, the context in which this study was conducted must be considered.

Although the choices made to measure the DBT-ST intervention were well considered (see Chapter 5), the participant burden (Section 8.9.4), given the context, may have been too high for some participants when considering the length of the intervention commitment itself. Lessons from the pilot will inform future improvements. For instance, the choice of repeating the MSCEIT in each cycle, given that it was the longest measure to complete, may have inadvertently created an increased burden on the participants. In retrospect, it may not have rendered meaningful information on the development of EI after the intervention. This measure would have benefitted from being analysed before the intervention to inform sessions and only repeated as a longitudinal measure at the end of the study. This measure may have been better applied if the follow-up was planned after six months or more.

While these operational and logistical challenges impacted the study's overall execution, the findings still provide valuable insights for future research. Lessons learned from this pilot study can inform more refined protocols, ensuring that future iterations address the identified limitations and enhance both the feasibility and impact of the DBT-ST intervention in midwifery and other professional contexts.

8.10.2. Limitations of the Online Format

One of the primary challenges of delivering a skills-based programme online is the potential reduction in participant engagement (Couper et al. 2010; Bijkerk et al. 2022). In an in-person setting, the facilitator has more opportunities to directly observe body language, facial expressions, and subtle cues, allowing for immediate adjustments to address disengagement or confusion. The online environment, however, may limit this kind of interaction, which can potentially affect participants' levels of engagement and understanding of the material.

Additionally, although the participants formed a preceptor group, online formats can impact group cohesion. In traditional in-person DBT-ST sessions, group dynamics play a significant role

in promoting learning and mutual support amongst participants (Linehan 1993, 2015a). Online sessions, by nature, create physical and sometimes emotional distance between participants, which may reduce the development of rapport with the facilitator. This could have limited the extent to which participants felt comfortable sharing subjective experiences or engaging in group discussions, which are integral to DBT-ST's interactive format. However, in this case, the facilitator was also a midwife, which aided the trust and sharing of mutual experiences.

Furthermore, the virtual environment may have limited the depth of interaction and real-time feedback, which are essential components in the facilitation of skills acquisition (Linehan 2015a). While discussions and reflective exercises were employed to maintain participant involvement, the absence of face-to-face interaction may have reduced the immediacy and richness of the feedback, which is seen in an in-person setting (Bijkerk et al. 2022). This could have affected how well participants internalised and applied the DBT skills in practice.

Moreover, the online format may have restricted the spontaneity of discussions and the organic sharing of ideas amongst participants (Andersson and Titov 2014). In a virtual setting, participants may feel less inclined to contribute freely or may be more hesitant to engage in discussions due to the potential for miscommunication or the lack of non-verbal reinforcement. This is why Beanlands et al. (2019) argued that trust in a like-minded co-facilitator would improve content delivery, which this study had attempted to procure.

These factors, while managed as effectively as possible during the online sessions, may have influenced the overall impact of the intervention, particularly in areas where active engagement and group interaction are critical to the learning process.

8.10.3. Facilitating the Intervention

As considered in Sections 8.9.4, 8.9.5, 8.9.6, 8.9.7 and 8.9.8, the unavoidable decision for the researcher to serve as the sole facilitator of the DBT-ST intervention, rather than co-facilitating with a DBT expert as originally intended, also introduced limitations. Without the additional expertise and depth that a more experienced facilitator could have contributed, there may have been a reduction in the quality of knowledge and skills imparted to participants. This factor may have negatively affected the results of the study outcomes. Furthermore, the absence of a co-facilitator with advanced DBT expertise, combined with the researcher's aspirations for the intervention, may have influenced how some participants experienced the sessions, potentially diminishing their perceived effectiveness. This bias could have been mitigated by a more effective and experienced DBT facilitator. Instead, being the sole facilitator of the intervention may have given rise to other biases that may have been operant with participants. For instance,

researcher bias and positional dynamics between the researcher and participants, particularly newly qualified midwives, may have affected the intervention delivery and study outcomes. These issues highlight the importance of a more balanced facilitation model and stronger safeguards against bias in future trials.

As the facilitator of the DBT-ST intervention, the researcher recognises several limitations related to the role undertaken. While the researcher completed a 6-week DBT Skills course via Psychwire, this training did not provide the depth of facilitator-specific preparation or DBT-ST expertise normally associated with delivering DBT-ST interventions. The absence of formal DBT facilitator certification may have limited the ability to address complex participant queries or dynamically adapt the material during the sessions. Initially, the intervention was intended to be facilitated by a DBT expert. However, stakeholder requirements led to the researcher assuming this responsibility. Despite having experience in psychological therapies, particularly in cognitive therapy for complex trauma profiles, the researcher acknowledges that she did not have the same level of expertise in DBT-specific techniques that a certified DBT facilitator might have brought to the programme.

Additionally, the researcher faced challenges in balancing dual roles as both researcher and facilitator. Managing group dynamics, delivering the intervention, and conducting research concurrently may have influenced the researcher's capacity to fully engage with participants from a facilitative standpoint. The online format of the intervention, although a practical solution given the context of the pandemic, presented further limitations. In an online environment, opportunities to observe non-verbal communication and group interactions are reduced, which may have impacted participant engagement. Furthermore, although the researcher tailored the DBT skills to midwifery-specific contexts to enhance relevance, there may have been limitations in focusing primarily on work-related applications, potentially narrowing the broader applicability of the skills in other areas of participants' lives.

Therefore, it is acknowledged that the researcher's limited experience with DBT-ST may have affected the outcomes of this pilot study. As the facilitator of the DBT-ST intervention, the researcher employed midwifery-related contexts throughout the sessions to ensure the relevance of the skills training. Given the universal application of the programme, it was crucial to align the content with the specific stressors and emotional challenges faced by midwives, thereby promoting engagement and retention of the material (Beanlands et al. 2019). Additionally, her role as a midwife with extensive experience in perinatal mental health allowed her to relate directly to the participants' experiences, fostering a supportive and informed

learning environment. Furthermore, as a pragmatic researcher, faced with the complex environmental context of this pilot study, there was little scope for other alternative solutions.

8.11. Summary

This chapter outlined the methods and rationales employed in the study pilot, including changes and adaptations made before and during the research. It detailed the application, selection, and modifications executed during fieldwork. The chapter also covered the inclusion/exclusion criteria, recruitment process, data collection methods, and instruments for both the quantitative and qualitative phases. Data analysis procedures were described, along with responses to contextual, logistical, and operational challenges encountered in the field. Ethical considerations and limitations of the quasi-experimental design and complex factors were also addressed. The next chapter will inform the quantitative outcomes of the pilot study.

Chapter 9. Findings

9.1. Chapter Overview

This chapter presents the empirical findings from the DBT for Midwives pilot study. Quantitative data collected during the first phase of the study are reported in narrative form, supported by visual, tabular, and graphical representations, alongside explanatory commentary. The chapter begins with a brief account of key events and protocol amendments, followed by a description of the participant recruitment process. Participant demographics are then outlined. The primary outcomes of the pilot study are presented using the psychometric measures administered at repeated intervals, including an additional measure completed by the intervention group prior to the start of the intervention.

9.2. Introduction

The pilot study began as planned. Participants in the intervention group and control group completed the pretest measures. Participants in the intervention group attended the DBT-ST intervention for a period of six weeks and completed the post-test measures. As stated in Chapter 8, due to the challenging context of the third wave of COVID-19, progressive disengagement of some participants, the late stages of the PhD timeline, and the health of the researcher, the pilot was prematurely ended. Therefore, this chapter presents the findings of the pretest and post-test data collected prior to the end of the study.

The quantitative question was: Can a DBT Skills Training Group Intervention modify emotional regulation factors in early career midwives? The objectives are listed in Chapter 7, Section 7.1.2.

9.3. Participant Recruitments

In October 2021, the researcher was invited to the recruitment meeting organised by the maternity service. After presentation and discussions, eight midwives were recruited to the study's intervention group from a pool of twelve midwives. Six weeks later, in December 2021, a further recruitment pool of nine newly appointed midwives underwent the recruitment by the same means, which resulted in six midwives joining the control group. A further two midwives self-identified to the researcher from the wider pool of early career midwives (ECMs) employed at the maternity service (Figure 9.1).

As discussed in Chapter 8, Section 8.4.2, the staggered recruitment led to a six-week staggered start between the two groups. This was due to unavoidable logistical challenges at the research

site. However, both groups followed a synchronous schedule of the repeated measures as depicted in Figure 12. The two groups were comprised of ECMs with 12 newly qualified midwives (NQMs), 6 in each group. These NQMs followed the same maternity service's induction programme and entered their respective preceptorship programmes run by the same education support team present at the maternity service site. In the intervention group, a further ECM began her clinical practice and did not join the preceptorship programme after the six-week induction programme was completed. In the control group, a further 2 ECMs were already employed at this NHS Trust research site.

The pilot study was conducted in the UK during the third wave of the COVID-19 pandemic (Omicron variant wave), which also coincided with the beginning of vaccination implementation. The COVID-19 health restrictions were in place and lifted in March 2022 after the post-test measures were completed. The maternity service NHS Trust site had undergone significant challenges during the pandemic, which resulted in an exacerbation of ongoing staffing shortages during the study period.

9.3.1. Intervention Group Study Journey

Eight Early Career Midwives (ECMs) consented to participate in the intervention group. After the recruitment and consent processes were completed, one participant left the study before completing the pretest (baseline) psychometric tests. Therefore, seven participants completed pretest measures. After the intervention began, a further participant left the study prior to the third session due to clinical demands. The remaining six participants completed the six sessions of the intervention.

Once they completed the intervention, the six participants were sent emails inviting them to complete the post-test repeated measures. One participant disengaged from the study, leaving five participants completing the post-test measures (Figure 9.1).

9.3.2. Control Group Study Journey

Eight ECMs consented to join the control group and completed pretest measures. One participant was unable to complete the pretest Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) measure due to technical difficulties but completed the remaining pretest measures. This participant left the study shortly after. Therefore, seven participants remained in this group. After six weeks from the completion of the pretest measures, emails were sent to these participants inviting them to complete the post-test measures. Seven remaining participants completed all post-test measures (Figure 9.1).

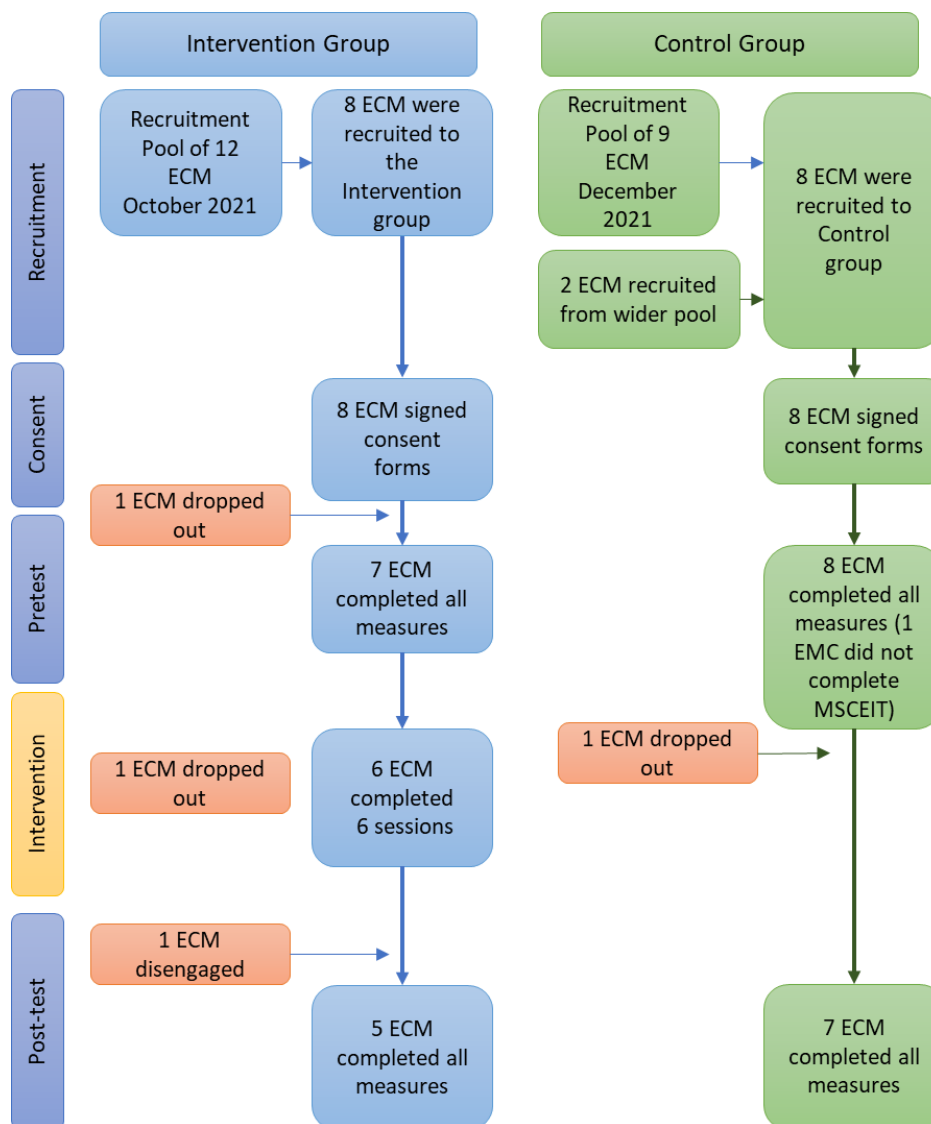


Figure 9.1: Participant journey flowchart

9.4. Demographic Data

A total of 15 participants completed the demographic questionnaire. All participants were NMC registered midwives and were of female gender between 21 to 32 years of age, with a mean age of 25. The majority were working full-time, with one midwife working part-time. Most participants were preceptorship midwives as preceptors starting their first year of practice as registered midwives, with four participants having been in practice up to five years. The majority of participants were either married or in a relationship; five participants were single. Only two participants had dependants under the age of eighteen. All participants completed regular night shifts and on-calls (Table 9.1).

Table 9.1: Demographic data

Demographic Category	Intervention Group	Control Group
Total Participants n = 15	7	8
Average Age (years)	27.2	23.4
Full-time Employment	7	7
Part-time Employment	0	1
Band 5	6	6
Band 6	1	1
Band 7	0	1
Preceptorship	5	5
Core	1	0
Case-loading	0	2
Integrated	1	0
Specialist midwife	0	1
Dependants	1	1
Night shifts per month	4–6	4–8
On-calls yes	5	4
On-calls no	2	3
Extra hours per week	1–2 hours	1–3, (>3) hours
Relationship Status - In	6	3
Relationship Status - Single	1	4
Dependants - Yes	1	1

9.5. Quantitative Results

9.5.1. University of Rhode Island Change Assessment (URICA)

As outlined in Chapter 8, Section 8.6.1.6, the URICA is widely used in behavioural research to assess individuals' readiness to engage in self-betterment interventions. Given the context in which the pilot was conducted, it was considered necessary to include this measure to assess

participants' levels of preparedness prior to beginning the Dialectical Behaviour Therapy Skills Training (DBT-ST) intervention. This readiness may have influenced the quality of engagement and the potential impact on outcomes. The intervention group was invited to complete the URICA pre-test, and seven participants completed this measure. As described in Chapter 8, Figure 8.4, this measure was applied only to this group, as they were destined to complete the DBT-ST intervention. It was crucial to gain an understanding of their readiness to change before starting this intervention. The measure was not repeated at the post-test because this study did not aim to evaluate their development of motivational engagement. The URICA was not administered to the control group, as they did not participate in the intervention.

The results of the URICA revealed an average score of 8.5 (Table 9.2), indicating that the overall level of participants was at the contemplation stage. This stage signifies ambivalence about engaging in psychological improvement. However, three participants scored within the precontemplation stage, generally indicating a lack of desire for therapeutic change. Both the contemplation and precontemplation stages are understood as representing a low commitment to engage in psychological improvement (McConaughy et al. 1989). The results of the URICA may inform further discussions in Chapter 10.

Table 9.2: University Of Rhode Island Change Assessment (URICA)

N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
7	2.99	6.71	9.70	8.50	.45	1.17747

9.6. ANCOVA Results

9.6.1.1. Data analysis:

The following measures and outcomes are based on the totals and subscale scores of participants' responses. The quantitative data was analysed (IBM SPSS 28 software) using descriptive and inferential statistics. Analysis of covariance (ANCOVA) was employed for four of the measures to evaluate both the main effects of the intervention group versus the control group and the interaction effects of time (pre-test versus post-test) on these continuous dependent variables. The ANCOVA controlled for the effects of selected continuous covariates which may co-vary with the dependent variables. By adjusting for these specific factors, the analysis could isolate and attribute any observed changes to the intervention, ensuring the results reflected the effects of the DBT-ST intervention rather than confounding influences.

For the Connor-Davidson Resilience Scale (CD-RISC), a two-way repeated measures analysis of variance (ANOVA) was conducted to examine the main and interaction effects of group (Intervention versus Control) and time (pre-test versus post-test). The ANOVA was applied after identifying that the homogeneity of regression slopes was not suitable for ANCOVA, ensuring the integrity of the analysis. This approach allowed for the assessment of the resilience levels without the need to control for covariates that co-vary with the dependent variable. By utilising ANOVA, the analysis could robustly determine if significant changes in resilience occurred due to the intervention or were reflective of the variability observed in baseline resilience scores.

9.6.2. Emotional Labour Scale (ELS)

The inclusion of the ELS in this study is predicated on its well-documented efficacy in quantifying the dimension of emotional labour of surface acting and deep acting. These coping strategies are particularly relevant to the sustainability in midwifery practice, where the demands on professional practice impact levels of well-being and job satisfaction. The ELS aligns with the research objectives based on the theoretical framework in Chapter 5. It identified the prevalence of emotional labour among participants and also assesses the potential mitigative effects of the DBT-ST intervention on these stressors. As outlined in Appendix 16, higher scores indicate higher use of these strategies. The measure was applied to both groups at pretest and repeated after six weeks.

The ELS scores were analysed using an ANCOVA to adjust for baseline differences between groups. The ANCOVA included the pretest scores as a covariate to ensure any changes observed at post-test could be appropriately attributed to the intervention rather than pre-existing differences.

9.6.2.1. Baseline equivalence testing:

Prior to applying the ANCOVA, preliminary analysis was conducted to check if there were significant differences between the intervention and control groups at baseline (pre-test scores). The results indicated no significant differences between groups at baseline ($F(1) = 27.144$, $p = .816$). Even if the groups did not differ significantly at baseline, an ANCOVA is beneficial because it controls for any variability in baseline scores that could influence the outcome. This is particularly important in studies where individual variability could obscure the effects of the intervention. Even small differences could influence the outcomes. In this manner, the ANCOVA more accurately and reliably estimates the intervention effect by factoring in these baseline covariates.

9.6.2.2. Homogeneity of Regression Slopes

The test for homogeneity of regression slopes showed a non-significant result, confirming that the relationship between the baseline and post-test scores was similar across groups, justifying the use of ANCOVA ($F(1, 9) = 0.024$, $p = .881$). This assumption being met indicates that it was appropriate to adjust post-test scores based on baseline values across both groups.

9.6.2.3. ANCOVA Results for Emotional Labour Scale (ELS)

Table 9.3: ANCOVA results for Emotional Labour Scale (ELS) at post-test

Source	df	Sum of Squares	Mean Square	F	p	Partial Eta Squared
Corrected Model	2	194.984a	97.492	10.485	.004**	.700
Intercept	1	43.618	43.618	4.691	.059	.343
tx.group	1	179.745	179.745	19.331	.002**	.682
Total.T1	1	72.221	72.221	7.767	.021*	.463
tx.group * Total.T1	9	83.683	9.298			
Error	12	34412.000				
Total	11	278.667				
Corrected Total	2					

Note: a. R Squared = .700 (Adjusted R Squared = .633). df = degrees of freedom. Sig. = Significance level where * $p < .05$ and ** $p < .01$. η^2 = Partial Eta Squared. b. The analysis includes data from 12 participants who provided complete data sets at both T1 and T2 (5 from the intervention group and 7 from the control group).

The ANCOVA results for the ELS at post-test (Table 9.3) indicate that there was a significant effect of the DBT-ST intervention on the ELS scores at post-test, considering the covariate pretest scores.

Table 9.3 shows that the corrected model was significant ($F(2, 9) = 10.485$, $p = .004$), explaining 70% of the variance in post-test scores (Partial Eta Squared = .700), indicative of a substantial effect size.

Specifically, the covariate pretest ELS Scores (Total.T1) showed a significant main effect on post-test scores ($F(1, 9) = 19.331$, $p = .002$, Partial Eta Squared = .682), demonstrating that initial levels significantly influenced outcomes.

Treatment Group (tx.group) also significantly influenced post-test ELS scores ($F(1, 9) = 7.767$, $p = .021$, Partial Eta Squared = .463), highlighting the effectiveness of the DBT-ST intervention.

The interaction effect (tx.group * Total.T1) between the treatment group and initial scores was not significant ($F(1, 9) = 0.024$, $p = .881$), indicating that the intervention's effect was consistent across different baseline levels of emotional labour.

Post hoc tests or pairwise comparisons were not conducted because the main effects were of primary interest. The homogeneity of variances assumption was assessed using Levene's test, which revealed no significant differences in error variances across groups ($F(1, 10) = .274$, $p = .612$).

9.6.2.4. Descriptive Statistics of the ELS

Table 9.4: Descriptives for Emotional Labour Scale (ELS)

Group	Time	N	Mean (M)	(SD)	95% CI	Note
Intervention Group	T1	7	52.57	4.65	(49.13, 56.01)	
Control Group	T1	8	49.88	6.58	(45.32, 54.44)	
Total	T1	15	51.13	5.73	(48.23, 54.03)	
Intervention Group	T2	5	52.00	4.69	(47.89, 56.11)	a
Control Group	T2	7	54.29	5.41	(50.28, 58.30)	a
Total	T2	12	53.33	5.03	(50.48, 56.18)	a

Note: CI = Confidence Interval, a: Participant dropout is reflected in the reduced sample size from T1 to T2. Dropouts occurred due to non-completion of the post-test measures.

The descriptive statistics for the post-test scores indicated that the intervention group had a mean score of 52.00 ($SD = 4.69$), while the control group had a mean score of 54.29 ($SD = 5.41$), which showed a rise in the control group scores and a decrease in the DBT-ST group. This indicates a positive influence of the DBT-ST intervention on ELS scores (Table 9.4).

Table 9.5: Descriptives and subscales for ELS

ELS	Intervention Group	Control Group	Group Total	Intervention Group	Control Group	Group Total
	T1			T2		
	n = 7	n = 8	n = 15	n = 5	n = 7	n = 12
Total ELS	52.57 (SD 4.65)	49.88 (SD 6.58)	51.13 (SD 5.73)	52.00 (SD 4.69)	54.29 (SD 5.41)	53.33 (SD 5.03)

Surface Acting	9.43 (SD 1.40)	9.88 (SD 2.30)	9.67 (SD 1.90)	9.60 (SD 2.30)	10.00 (SD 2.00)	9.83 (SD 2.04)
Deep Acting	10.14 (SD 1.57)	8.25 (SD 1.58)	9.13 (SD 1.80)	9.60 (SD 1.82)	10.29 (SD 3.30)	10.00 (SD 2.70)
Frequency	12.29 (SD 0.49)	11.75 (SD 1.49)	12.00 (SD 1.13)	12.80 (SD 1.10)	13.14 (SD 1.57)	13.00 (SD 1.35)
Intensity	5.14 (SD 1.07)	5.38 (SD 1.41)	5.27 (SD 1.22)	5.40 (SD 0.55)	6.29 (SD 1.50)	5.92 (SD 1.24)
Variety	15.57 (SD 2.30)	14.88 (SD 2.03)	15.20 (SD 2.11)	14.40 (SD 1.82)	15.14 (SD 2.41)	14.83 (SD 2.13)

A closer scrutiny of the ELS subscales (Table 9.5) shows that, although there was a significant decrease in Total ELS scores for the intervention group compared to the control group, the ELS subscale scores between groups revealed more detail for these changes.

The subscales for Surface Acting scores were relatively stable across both groups and time points, with a slight increase in the control group by post-test. The Deep Acting subscales showed that the intervention group's scores were consistent, whereas the control group showed a significant increase from pretest (8.25) to post-test (10.29). This may suggest an increase in deeper emotional efforts. In the Frequency subscale, there was a general increase in both groups, which may indicate more frequent engagement in emotional labour. For the Intensity subscales, both groups showed an increase in the intensity of emotional labour. Finally, the Variety subscale scores showed a slight decrease in the intervention group from pretest to post-test and a minor increase in the control group.

Overall, the control group showed a trend of increased emotional labour across most subscales, particularly in deep acting, frequency, and intensity, suggesting that participants in this group might have experienced greater emotional demands or were using more emotional labour strategies over time. In contrast, the intervention group's subscale scores showed that emotional labour levels remained relatively stable, possibly reflecting the effectiveness of the DBT-ST intervention in helping manage emotional labour.

9.6.2.5. Key Considerations for the ELS Findings

Although the staggered start between groups and three dropouts (n = 2 in the DBT-ST group, n = 1 in the control group) at post-test, a synchronous schedule was adhered to. Although most of the participants were no longer considered supernumerary at post-test, they continued to be supported by their preceptorship programmes in both groups. Nevertheless, these results may be reflective of these external factors that affected the ELS results.

Despite these potential confounders, the lack of a significant interaction between the treatment groups and initial emotional labour scores suggests that the intervention's effect was generally robust across varying initial conditions. However, this should not negate the consideration of external and professional changes that might independently or interactively influence the outcomes.

Given these complexities, while the results suggest a positive impact of the DBT-ST intervention on reducing emotional labour overall, caution must be exercised in attributing differences solely to the DBT-ST intervention. A comprehensive interpretation must consider the possible contributions of external circumstances such as the pandemic and changes in practice status during the research period. These factors necessitate a discussion around the findings to ensure that conclusions drawn are contextualised and reflective of the multifaceted environment in which the study was conducted (see Chapter 10).

9.6.3. Maslach Burnout Inventory

The inclusion of the MBI in this study is predicated on its well-documented efficacy in quantifying the dimensions of exhaustion, cynicism (depersonalisation), and professional efficacy (personal accomplishment). These dimensions are particularly relevant to the midwifery profession, where the demands on professional practice impact levels of well-being and job satisfaction. The MBI aligns with the research objectives based on the theoretical framework in Chapter 5. It identified the prevalence of burnout among participants and also assesses the potential mitigative effects of the DBT-ST intervention on these stressors. The MBI scores reflect the levels of professional burnout in participants (see Chapter 8, Section 8.6.1.4).

The analysis of covariance (ANCOVA) was conducted to evaluate the influence of the DBT-ST intervention across different time points of the total MBI and its three subscales. The procedures were replicated for each of the ANCOVA subscales.

9.6.3.1. Baseline equivalence testing

Prior to the main analysis, a preliminary test was conducted to examine the relationship between pretest scores and treatment group categories. The results indicated that there is no significant difference in the pretest scores between the two treatment groups, $F(1, 13) = 0.347$, $p = 0.566$. This step was important to ascertain the suitability of using the pretest scores as covariates in the full factorial ANCOVA.

9.6.3.2. Homogeneity of regression slopes

A further preliminary test was conducted to consider the homogeneity of regression slopes to assess the interaction between pretest scores and treatment group status, $F(1, 8) = .576$, $p = .470$. This was imperative to ensure that the effects of the covariate were consistent across treatment conditions, thus maintaining the validity of the ANCOVA model employed. After confirmation of these key statistical assumptions, the full factorial ANCOVA was conducted.

In the full factorial ANCOVA, the homogeneity of variance confirmed by Levene's Test validated the appropriateness of the statistical model used, $F(1, 10) = 2.184$, $p = .170$, which showed that the assumption of equal error variances was satisfied.

9.6.3.3. ANCOVA Results for the Total MBI

Table 9.6: ANCOVA results for the Maslach Burnout Inventory (MBI) at post-test

Source	Time III Sum of Squares	df	Mean Squared	F	Sig.	Partial Eta Squared	Eta
Corrected Model	1855.734a	2	927.867	10.371	.005	.697	
Intercept	61.596	1	61.596	.688	.428	.071	
Pretest	1457.446	1	1457.446	16.291	.003	.644	
Groups	248.225	1	248.225	2.775	.130	.236	
Error	805.183	9	89.465				
Total	55595.000	12					
Corrected Total	2660.917	11					

Note: a. df = degrees of freedom. Sig. = Significance level. η^2 = Partial Eta Squared; b. The analysis includes data from 12 participants who provided complete data sets at both T1 and T2 (5 from the intervention group and 7 from the control group).

Despite the overall model reaching significance ($F = 10.371$, $p = .005$, Partial $\eta^2 = .697$), the DBT-ST intervention's impact on the total MBI scores was not statistically significant ($F = 2.775$, $p = .130$, Partial $\eta^2 = .236$), which indicated no substantial changes in overall burnout levels (see Table 9.6). This outcome suggested that, while the model, including the baseline scores, was predictive of the post-test scores, the specific contribution of the DBT-ST intervention was not sufficient to affect a statistically significant change in overall burnout levels.

9.6.3.4. ANCOVA Results for MBI Subscales

Table 9.7 ANCOVA results for the Maslach Burnout Inventory (MBI) subscales at post-test

Subscale	N	Source	df	F-value	p-value	Effect Size (Partial η^2)
Emotional Exhaustion	12	Groups	1	5.533	.043*	.381
Depersonalisation	12	Groups	1	0.000	.990	.000
Personal Accomplishment	12	Groups	1	3.922	.083	.019
Total MBI	12	Groups	1	2.775	.130	.236

Note: df = degrees of freedom. Sig. = Significance level where * $p < .05$ and ** $p < .01$. η^2 = Partial Eta Squared.

Further ANCOVAs were run for each of the MBI subscales applying the same analytical methods as for the total MBI scores (Table 9.7). There follows a breakdown of the results.

9.6.3.5. Depersonalisation subscale

The ANCOVA showed no significant group effects, $F(1, 11) = 0.000$, $p = .990$. This result implies that the group conditions did not explain any of the variance in depersonalisation scores at post-test (Partial Eta Squared = .000), which indicated that the intervention had no measurable impact on depersonalisation among the participants compared to the control group.

9.6.3.6. Personal accomplishment subscale

No significant effects were observed for the Personal Accomplishment subscale, $F(1, 11) = 3.922$, $p = .083$. This indicates that the group conditions accounted for only 1.9% of the variance in personal accomplishment scores at post-test (Partial Eta Squared = .019), which suggested that any differences in personal accomplishment were minimal and not statistically significant.

9.6.3.7. Emotional exhaustion subscale

The ANCOVA revealed significant effects for the Emotional Exhaustion subscale, $F(1, 11) = 5.533$, $p = .043$, which indicated that the group conditions explained 38.1% of the variance in emotional exhaustion scores at post-test (Partial Eta Squared = .381). This suggests that the differences in treatment or conditions between the groups had a substantial impact on the levels of emotional exhaustion experienced by the participants.

A closer scrutiny of the full ANCOVA outcomes for the Emotional Exhaustion subscale is shown below:

Table 9.8: ANCOVA results for the Emotional Exhaustion (EE) subscale for the MBI at post-test

Source	Time III Sum of Squares	df	Mean Squared	F	Sig.	Partial Eta Squared
Corrected Model	1278.068a	2	639.034	17.883	<.001**	.799
Intercept	8.977	1	8.977	.251	.628	.027
Pretest.EE	787.316	1	787.316	22.033	.001	.710
Groups	197.715	1	197.715	5.533	.043*	.381
Error	321.599	9	35.733			
Total	7496.000	12				
Corrected Total	1599.667	11				

Note: a. R Squared = .799 (Adjusted R Squared = .754); df = degrees of freedom; Sig. = Significance level where * $p < .05$ and ** $p < .01$. η^2 = Partial Eta Squared. b. The analysis includes data from 12 participants who provided complete data sets at both pretest and post-test (5 from the intervention group and 7 from the control group).

Table 9.8 details the ANCOVA outcomes for the Emotional Exhaustion subscale. The ANCOVA analysis indicated that, at pretest, emotional exhaustion was a significant predictor of post-test emotional exhaustion, $F(1, 9) = 22.033$, $p = .001$, explaining 71% of the variance (Partial Eta Squared = .710). Differences between groups significantly predicted emotional exhaustion at post-test, $F(1, 9) = 5.533$, $p = .043$, explaining 38.1% of the variance (Partial Eta Squared = .381). The corrected model significantly predicted emotional exhaustion at post-test, $F(2, 9) = 17.883$, $p < .001$, explaining 79.9% of the variance in scores (Partial Eta Squared = .799). The intercept did not significantly predict emotional exhaustion, $F(1, 9) = .251$, $p = .628$, explaining only 2.7% of the variance (Partial Eta Squared = .027), which suggested that differences in emotional exhaustion were more strongly related to the conditions experienced by the participants and their initial levels of emotional exhaustion rather than an inherent baseline level common to all participants.

While the DBT-ST intervention significantly reduced Emotional Exhaustion subscale, the absence of significant effects in the Depersonalisation and Personal Accomplishment subscales indicates that the overall impact on burnout was partial, highlighting the necessity for a more comprehensive approach to effectively address all components of burnout as defined by the MBI. This partial impact warrants a thorough examination of the changes within each subscale in the subsequent section to better elucidate the specific effects of the intervention.

9.6.3.8. Descriptive Statistical Analysis of the MBI

Table 9.9. Descriptive Statistics Maslach Burnout Inventory (MBI) subscales

MBI	DBT-ST	Control	DBT-ST	Control
	Pretest		Post-test	
	N= 7	N= 8	N= 5	N=7
Emotional Exhaustion	20.43 (SD 5.80)	24.13 (SD 11.62)	14.60 (SD 7.27)	27.57 (SD 12.23)
Total	20.40 (SD 9.25)		22.17 (SD 12.06)	
Depersonalisation	5.57 (SD 5.06)	6.88 (SD 5.79)	7.60 (SD 5.55)	7.71 (SD 5.50)
Total	6.27 (SD 5.31)		7.67 (SD 5.26)	
Personal Accomplishment	37.14 (SD 5.40)	36.13 (SD 5.14)	37.40 (SD 3.37)	36.00 (SD 6.33)
Total	36.60 (SD 5.10)		36.58 (SD 5.14)	
Overall MBI-HSS	63.14 (SD 8.36)	67.13 (SD 16.04)	59.60 (SD 6.62)	71.29 (SD 18.65)
Total	65.27 (SD 12.76)		66.42 (SD 5.10)	

Note: Values represent mean scores with standard deviations (SD) in parentheses.

The descriptive statistics in Table 9.9 demonstrate the subscales and total scores of the MBI. This output provides mean scores and standard deviations for the subscales of the MBI, measured both before and after the DBT-ST intervention, across the two groups. There follows a breakdown of the key data points from each category.

9.6.3.9. Descriptives for total MBI

Descriptive statistics demonstrated a slight, albeit non-significant, reduction in burnout levels from pretest scores within the intervention group, with the mean score decreasing from 63.14 (SD 8.36) at pretest to 59.60 (SD 6.62) at post-test. This suggests an overall reduction in burnout symptoms. In contrast, the control group saw their mean score increase from 67.13 (SD 16.04) at pretest to 71.29 (SD 18.65) at post-test, suggesting a worsening of burnout symptoms.

9.6.3.10. Descriptives for emotional exhaustion subscales

The descriptive statistics indicated a significant reduction in emotional exhaustion from pretest scores within the intervention group, with the mean score decreasing from 20.45 (SD 5.80) at pretest to 14.60 (SD 7.27) at post-test. This suggests an overall reduction of emotional exhaustion symptoms. In contrast, the control group saw their mean score increase from 24.13 (SD 11.62) at pretest to 27.57 (SD 12.53) at post-test, indicating an increase in emotional exhaustion.

The scores in this study are reflective of the emotional exhaustion mean scores in Sandall's (1998) study, 21 (SD 9.37), and Maslach and Jackson's (1981) normative data on health professionals' mean scores of 22 (SD 9.53).

9.6.3.11. Descriptives for depersonalisation and subscale

The descriptive statistics for this subscale indicated that both groups show an increase in mean scores from pretest to post-test, indicating an increase in feelings of depersonalisation. The intervention group scores had a mean of 5.57 (SD 5.06) at pretest, which increased to 7.60 (SD 5.55) at post-test. Similarly, the control group showed a mean score at pretest of 6.88 (SD 5.79), which also increased at post-test to 7.71 (SD 5.50).

The scores in this study at post-test are comparatively higher than those of Sandall (1998) and Maslach and Jackson (1981), with mean scores of 4 (SD 4.04) and 7 (SD 5.22) respectively. Although this study's mean scores are not as high as Yoshida and Sandall's (2013) mean score of 9.1 (SD 5.97), there appears to be a progressive increase in this subscale across time.

9.6.3.12. Descriptives for personal accomplishment subscale

The descriptive statistics for the personal accomplishment subscale indicated that the intervention group saw a slight increase in mean scores at post-test, from 37.14 (SD 5.40) at pretest to 37.40 (SD 3.37) at post-test. This suggests a slight improvement in feelings of personal accomplishment, while the control group showed a slight decrease from 36.13 (SD 5.14) at pretest to 36.00 (SD 6.33) at post-test. These results indicate that levels of personal accomplishment remained relatively stable across time, with the intervention group indicating a higher sense of personal accomplishment at baseline compared to the control group.

The scores in this study are reflective of the personal accomplishment mean scores in Sandall's (1998) study, with a mean of 37 (SD 6.71), and Maslach and Jackson's (1981) normative data of health professionals, with mean scores of 37 (SD 7.35). However, Yoshida and Sandall's (2013) results for personal accomplishment reported significantly higher mean scores of 45.8 (SD 5.97) than the participants in this pilot study. The disparity may be indicative of contextual circumstances in this pilot study.

9.6.3.13. Interpretation of the MBI Outcomes

The results of the Maslach Burnout Inventory (MBI) and its subscales suggest that the DBT-ST intervention may have been effective in reducing emotional exhaustion, as evidenced by the decrease in mean scores from pretest to post-test. In contrast, the control group exhibited increases in mean scores across these subscales, suggesting worsening conditions. This deeper analysis facilitates the assessment of the potential efficacy of the DBT-ST intervention in managing burnout, particularly focusing on its core dimensions such as emotional exhaustion.

While the intervention significantly reduced emotional exhaustion, which highlights its effectiveness in mitigating one of the MBI's central factors of burnout, it did not produce similar results in altering levels of depersonalisation or personal accomplishment. Additionally, the analysis of the total MBI scores also indicated that the overall burnout levels were not substantially impacted by the intervention, though the trends were notably promising. It is important to consider these findings within the context of the study's limitations, particularly its small sample size, and to treat interpretations with caution.

The findings collectively suggest that DBT-ST is particularly beneficial in addressing the emotional strains experienced by midwives, but may require additional programme improvements in order to affect other subscales of the MBI which, in this study, were not significantly affected. Further research with a larger cohort and an extended intervention period could provide more evidence of efficacy.

9.6.4. Difficulty of Emotional Regulation Scales (DERS)

The inclusion of the DERS in this study is predicated on its well-established efficacy in measuring the multifaceted aspects of emotion regulation difficulties, including non-acceptance of emotions, impulse control, and goal-directed behaviour. These dimensions are particularly pertinent to the midwifery profession, where the emotional demands of practice can significantly impact both personal well-being and professional performance. The DERS aligns with the research objectives outlined in Chapter 7 and Chapter 5, which emphasise the importance of emotion regulation as a key factor in mitigating work-related stress. By using the DERS, this study assesses the baseline levels of emotion regulation difficulties among participants and evaluates the potential benefits of the DBT-ST intervention in reducing these difficulties, thereby enhancing midwives' capacity to cope with the emotional challenges of their role.

As shown in Appendix 16, higher scores indicate higher difficulties of emotion regulation. The measure was applied to both groups at pretest and repeated after six weeks from completing the pretest.

The DERS scores were analysed using an Analysis of Covariance (ANCOVA) to adjust for baseline differences between groups. The ANCOVA included the pretest scores as a covariate to ensure any changes observed at post-test could be appropriately attributed to the intervention rather than pre-existing differences.

9.6.4.1. Baseline Equivalence testing

The preliminary assessment was to consider if there was a relationship between the pretest scores (DERS.T1) across the treatment groups (tx.group), which showed no statistically significant effect ($F(1, 13) = 0.243, p = .630$). Therefore, the pretest scores could be applied as the covariate in the subsequent ANCOVA.

9.6.4.2. Homogeneity of Regression Slopes

The test for homogeneity of regression slopes showed a non-significant result, which confirmed that the relationship between the baseline and post-test scores was similar across groups, justifying the use of ANCOVA ($F(1, 8) = 0.311, p = .592$). The absence of significant interaction suggested that the efficacy of treatment was consistent regardless of participants' initial DERS levels. This assumption being met indicates that it was appropriate to adjust post-test scores based on baseline values across both groups.

In the full factorial ANCOVA, the homogeneity of variance confirmed by Levene's Test validated the appropriateness of the statistical model used ($F(1, 10) = 0.066, p = .803$), which showed that the assumption of equal error variances was satisfied.

9.6.4.3. ANCOVA results for the DERS

Table 9.10: ANCOVA results for Difficulties of Emotion Regulation Scale (DERS) at post-test

Source	Time III Sum of Squares	df	Mean Squared	F	Sig.	Partial Eta squared
Corrected Model	2760.505a	2	1380.252	9.889	.005	.687
Intercept	31.817	1	31.817	.228	.644	.025
Pretest	2734.752	1	2734.752	19.594	.002	.685
Groups	344.249	1	344.249	2.466	.151	.215
Error	1256.162	9	139.574			
Total	63378.000	12				
Corrected Total	4016.667	11				

Note. a. R Squared = .687 (Adjusted R Squared = .618); df = degrees of freedom; Sig. = Significance level where * $p < .05$ and ** $p < .01$; η^2 = Partial Eta Squared. b. The analysis includes data from 12 participants who provided complete data sets at both T1 and T2 (5 from the intervention group and 7 from the control group).

Table 9.10 shows that the corrected model was significant ($F(2,9) = 9.889, p = .005$), which indicated that the model explained 68.7% of the variance in DERS scores at post-test (Partial Eta Squared = .687).

The intercept was not significant ($F(1,9) = 0.228, p = .644$), which suggested that the baseline level of DERS does not independently predict post-test DERS scores when controlling for other variables.

The pre-test scores were a significant predictor of post-test DERS scores ($F(1,9) = 19.594, p = .002$), with a large effect size (Partial Eta Squared = .685). This result indicates that initial difficulties in emotion regulation were strongly associated with post-test outcomes.

The group effect, which reflects the difference between the intervention and control groups at post-test while accounting for pre-test scores, was not statistically significant ($F(1,9) = 2.466, p = .151$), with a Partial Eta Squared of .215. This suggests that, after controlling for baseline differences, the intervention did not lead to a statistically significant improvement in emotion regulation difficulties compared to the control group.

Therefore, the results of the ANCOVA for the DERS at post-test revealed a non-significant main effect of the DBT-ST intervention on difficulty of emotional regulation. There follows a closer look at the descriptive statistics and the DERS subscale for a deeper analysis.

9.6.4.4. Descriptive Statistical Analysis of the DERS outcomes

Table 9.11: Descriptive statistics for Difficulties of Emotion Regulation Scale (DERS) subscales

DERS	Pretest n= 15			Post-test n=12		
	Pretest			Post-test		
	Means	SD	Range	Means	SD	Range
Total DERS						
Intervention Group	77.71	16.78	55-97	68.60	18.77	45-97
Control Group	72.75	21.49	45-108	71.57	20.74	45-103
Total	75.07	18.96	45-108	70.33	19.11	45-103
Subscale for Awareness						
Intervention Group	12.43	2.44	8-15	13.00	2.34	11-16
Control Group	10.88	2.70	6-14	10.57	2.64	6-13
Total	11.60	2.61	6-15	11.58	2.71	6-16
Subscale for Strategies						
Intervention Group	16.57	6.35	9-25	12.80	6.42	9-25
Control Group	12.13	3.18	8-16	13.86	6.49	8-16
Total	14.20	5.25	8-25	13.42	6.19	8-25
Subscale for Clarity						
Intervention Group	9.29	1.50	7-11	8.40	2.07	6-11
Control Group	11.50	3.89	7-18	10.00	3.51	6-16
Total	10.47	3.14	7-18	9.33	2.99	6-16
Subscale for Impulsivity						
Intervention Group	9.14	2.91	7-15	9.40	3.91	7-16

Control Group	9.88	3.40	6-17	11.00	4.08	6-17
Total	9.53	3.09	6-17	10.33	3.92	6-17
Subscale for Goals						
Intervention Group	13.57	3.91	8-18	11.20	4.76	6-16
Control Group	12.38	3.38	8-19	11.57	2.44	10-16
Total	12.93	3.55	8-19	11.42	3.40	6-16
Subscale for Nonacceptance						
Intervention Group	14.71	8.60	7-27	11.60	4.77	6-18
Control Group	14.13	8.42	6-27	12.86	4.37	7-20
Total	14.40	8.20	6-27	12.33	4.38	6-20

Notes: Higher scores suggest greater difficulties in emotion regulation (Hallion et al. 2018; Burton et al. 2022). The Awareness subscale suggests a lack of awareness of emotions and acknowledging emotions. The Strategies subscale suggests a lack of strategies to manage emotions. The Clarity subscale reflects the levels of knowledge about felt emotions. The Impulsivity subscale suggests some difficulties in controlling emotional responses. The Goal subscale reflects the ability to complete tasks under strong emotions. The Nonacceptance subscale reflects the negative emotions about felt emotional states (Gratz and Roemer 2004).

9.6.4.5. Total DERS Scores

Table 9.11 demonstrates that the total DERS scores indicate overall difficulties in emotion regulation. At pre-test, the intervention group had a mean score of 77.71 (SD = 16.78), slightly higher than the control group's mean score of 72.75 (SD = 21.49). This suggests that both groups experienced significant difficulties in regulating emotions. By post-test, the intervention group showed a notable reduction in their total DERS score to 68.60 (SD = 18.77). This indicates some improvement in emotion regulation following the DBT-ST intervention. In contrast, the control group's post-test score remained relatively stable at 71.57 (SD = 20.74), which indicates minimal change in their overall emotion regulation difficulties. These differences suggest that the DBT-ST intervention may have contributed to reducing overall emotion regulation difficulties in the intervention group. However, due to the small sample size, these did not reach statistical significance.

9.6.4.6. Total DERS Ranges

Both groups at pre-test and post-test fall within the lower end of the normative range, suggesting that their difficulties with emotion regulation were mild to moderate compared to clinical populations (Gratz and Roemer 2004; Hallion et al. 2018; Burton et al. 2022). The ranges for the total DERS showed that the intervention group experienced a more consistent improvement, with a lower post-test score (45 at the minimum), indicating that participants in this group experienced some reduction in emotion regulation difficulties. Comparatively, the control group

did not show a significant downward shift in the range, suggesting more stable or persistent difficulties compared to the intervention group.

9.6.4.7. Awareness Subscale

The Awareness subscale measures the lack of awareness of emotions. At pre-test, the intervention group had a mean score of 12.43 (SD = 2.44), while the control group had a slightly lower mean of 10.88 (SD = 2.70). At post-test, the intervention group's score increased to 13.00 (SD = 2.34), indicating a slight worsening in awareness of emotions. This may suggest that participants became more aware of their emotional difficulties as they learned to identify and acknowledge their emotions during the DBT-ST intervention. Conversely, the control group showed a small reduction in their score to 10.57 (SD = 2.64), which suggests no substantial change in their emotional awareness.

9.6.4.8. Awareness Subscale ranges

Both groups fall within the lower half of the normative range, indicating mild to moderate difficulties in emotional awareness (Gratz and Roemer 2004; Hallion et al. 2018; Burton et al. 2022).

9.6.4.9. Strategies Subscale

The Strategies subscale reflects the perceived lack of effective strategies to manage emotions. At pre-test, the intervention group had a mean score of 16.57 (SD = 6.35), while the control group had a lower score of 12.13 (SD = 3.18), which indicates greater difficulties in the intervention group. By post-test, the intervention group's score improved to 12.80 (SD = 6.42), which reflects a notable reduction in difficulties with managing emotions. Conversely, the control group showed a slight increase in their score to 13.86 (SD = 6.49), which indicates a small increase in difficulties with emotion management over time.

9.6.4.10. Strategies Subscale ranges

Some participants in the intervention group showed mild to moderate difficulties in the use of strategies compared to the control group, where most participants were within the normal and mild ranges compared to normative and clinical populations (Gratz and Roemer 2004; Hallion et al. 2018; Burton et al. 2022). The intervention group, despite an unchanged range, shows improvement in the mean score. This suggests that while variability in strategy use remains, some participants developed better strategies for managing emotions. The control group shows no significant change in its range, indicating that the lack of intervention did not lead to progress in acquiring emotion regulation strategies.

9.6.4.11. Clarity Subscale

The Clarity subscale measures the clarity of emotional understanding. At pre-test, the intervention group had a mean score of 9.29 (SD = 1.50), compared to 11.50 (SD = 3.89) in the control group. This suggests that at baseline, participants in the intervention group had a slightly better understanding of their emotions compared to those in the control group. By post-test, the intervention group's score decreased to 8.40 (SD = 2.07), suggesting a further improvement in emotional clarity. However, the control group also showed a reduction to 10.00 (SD = 3.51), though their clarity remained higher than that of the intervention group. This indicates that both groups experienced a modest increase in emotional clarity. However, understanding emotions may be an ability that needs further consideration in future research.

9.6.4.12. Clarity Subscale ranges

Most participants in both groups fall within the normal, mild, and moderate ranges. This indicates that some participants experienced moderate difficulties with emotional clarity at pre-test compared to clinical populations (Gratz and Roemer 2004; Hallion et al. 2018; Burton et al. 2022). The intervention group shows slight improvement (6–11), suggesting some participants experienced better emotional clarity. In contrast, the control group remains highly variable (6–16), with some participants showing limited clarity post-test, potentially due to the absence of the DBT-ST intervention.

9.6.4.13. Impulsivity Subscale

The Impulsivity subscale assesses difficulties in controlling emotional responses. Both groups had similar pre-test scores, with the intervention group scores of 9.14 (SD = 2.91) and the control group scores of 9.88 (SD = 3.40). This indicates a comparable baseline difficulty with impulsivity between the two groups. By post-test, the intervention group's score increased slightly to 9.40 (SD = 3.91), while the control group's score increased more noticeably to 11.00 (SD = 4.08). This suggests that while the intervention group maintained relatively stable control over their emotional responses, the control group experienced increasing difficulties with impulsivity.

9.6.4.14. Impulsivity Subscale ranges

Both groups fall at the lower end of the normative range, which indicates a normal range of difficulties with impulsivity. However, some participants in both groups fall within the mild and moderate ranges. This suggests that these participants may have difficulties managing their impulsivity. The intervention group shows slight variation in the range, with minimal change after the intervention. However, the control group shows no improvement, remaining consistent with normative expectations of mild difficulties.

9.6.4.15. Goals Subscale

The Goals subscale reflects participants' ability to complete tasks under emotional stress. The intervention group's pre-test mean score was 13.57 (SD = 3.91), compared to the control group's mean of 12.38 (SD = 3.38). By post-test, the intervention group's score improved to 11.20 (SD = 4.76), showing a reduction in difficulties achieving goals while managing strong emotions. This may suggest that the DBT-ST intervention had a positive effect on participants' ability to focus and complete tasks even in emotionally challenging situations. In contrast, the control group showed only a slight improvement, with a post-test score of 11.57 (SD = 2.44). The larger improvement in the intervention group compared to the control group could suggest that the intervention provided participants with tools to better manage their emotions while remaining task focused. However, contextual influences cannot be excluded and merit exploration with further research.

9.6.4.16. Goals Subscale ranges

Most of the participants across both groups showed a normal range of capabilities in attaining their goals. However, some participants fell in the moderate range, which suggests that they may experience difficulties in attaining their goals. The intervention group shows an improved range after the intervention (6–16), indicating that some participants became more capable of achieving goals despite emotional challenges. In contrast, the control group's range remained relatively unchanged, suggesting that the lack of intervention potentially led to stagnation in their ability to complete tasks under emotional stress.

9.6.4.17. Nonacceptance Subscale

The Nonacceptance subscale measures the negative emotions associated with experiencing emotional states. At pre-test, the intervention group had a mean score of 14.71 (SD = 8.60), slightly higher than the control group's mean of 14.13 (SD = 8.42), suggesting that both groups experienced difficulties accepting their emotions. By post-test, the intervention group's score decreased to 11.60 (SD = 4.77), which indicates improved acceptance of emotional experiences following the intervention. This reduction suggests that the participants developed a more accepting attitude towards their emotional experiences. The control group also showed a slight decrease in their score to 12.86 (SD = 4.37), though the change was less pronounced than in the intervention group. These results may suggest that the DBT-ST intervention potentially had a greater impact on improving participants' acceptance of their emotions compared to the control condition.

9.6.4.18. Nonacceptance Subscale ranges

Both groups began with wide pre-test ranges that fell between normal to severe ranges of nonacceptance. This suggests that some participants experienced significant difficulties accepting their emotions. The intervention group showed a notable reduction in the range (6–18), indicating that fewer participants had severe nonacceptance difficulties after the intervention. The control group also showed some reduction (7–20), though it remained more variable, indicating persistent difficulties with emotional nonacceptance in this group.

9.6.4.19. Summary of DERS Subscales and Ranges

In summary, the results from the DERS subscales suggest that the intervention group experienced improvements across several dimensions of emotional regulation, particularly in their use of strategies, emotional clarity, goal achievement, and acceptance of emotions. While both groups showed some changes, the intervention group demonstrated more substantial improvements, particularly in managing emotions and accepting emotional experiences. Nevertheless, the range scores of some participants in both groups showed concerning levels of emotion regulation difficulties, particularly for the Nonacceptance subscale. This highlights that emotion regulation difficulties should be explored in further research.

9.6.5. Connor-Davidson Resilience Inventory Scale (CD-RISC)

The inclusion of the CD-RISC in this study is predicated on its well-documented efficacy in quantifying the levels of participant resilience (see Chapter 8, Section 8.6.1.5). Resilience is an aspirational factor in the sustainability of the midwifery profession, where the demands on professional practice impact levels of well-being and job satisfaction. The CD-RISC aligns with the research objectives of the study and the theoretical framework in Chapter 5. This measure identifies the prevalence of resilience among participants and assesses the potential mitigative effects of the DBT-ST intervention.

9.6.5.1. Baseline Equivalence testing

The preliminary analysis prior to running the full factorial ANCOVA was to assess the pretest scores across treatment groups as a preliminary analysis to ensure that pretest scores could be applied as the covariate in the subsequent ANCOVA models. However, this preliminary test revealed that there was a statistically significant difference between pretest scores across both groups at baseline ($F = 4.914, p = .045$), which could affect the interpretation of outcomes in the subsequent ANCOVA analyses. Therefore, a Repeated Measures ANOVA was instead conducted to assess the changes to resilience scores over time within and between the two groups (Table 9.12).

9.6.5.2. Assumptions of the Repeated Measures ANOVA

Box's Test of Equality of Covariance Matrices indicated a p-value of .509, suggesting that the covariance matrices for the dependent variable across the groups are not significantly different. This is a desirable outcome as it supports the use of parametric tests.

Mauchly's Test of Sphericity showed a perfect score, indicating that the assumption of sphericity is met for the repeated measures.

Levene's Test of Equality of Error Variances across the two time points produced non-significant results, supporting the assumption of equal variances across groups at both time points.

9.6.5.3. The ANOVA findings for the CD-RISC

Table 9.12: ANOVA results for the Connor-Davidson Resilience Inventory Scale (CD-RISC) at post-test

Source	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Time	0.171	1	0.171	0.016	0.901	0.002
Group	164.743	1	164.743	1.786	0.211	0.152
Time * Group	22.671	1	22.671	2.163	0.172	0.178
Error	104.829	10	10.483			

Note: a. The analysis includes data from 12 participants who provided complete datasets at both T1 and T2 (5 from the intervention group and 7 from the control group).

Table 9.12 of the ANOVA output revealed that the tests of within-subjects effects showed the analysis of the main effect of time (change from pretest to post-test) resulted in a non-significant F-statistic ($F = .016$, $p = .901$). The effect size (Partial Eta Squared = .002) suggests that, across both groups combined, time alone did not have a practical influence on the resilience scores.

The result for the main effect suggests that there are no statistically significant differences between the Intervention and control groups regarding resilience scores at post-test ($F = 2.163$, $p = .172$). The effect size was moderate (.152), indicating that being in the Intervention or control group accounted for about 15.2% of the variance in resilience scores.

The interaction effect of time and group explores whether the change in resilience scores over time differed between the groups. The results indicate that there was no statistically significant interaction between time and group ($p = .172$). The effect size is moderate (.178), suggesting that the interaction explained about 17.8% of the variance in resilience scores.

Overall, none of the effects (time, group, or time-by-group interaction) were statistically significant. This implies that the intervention did not have a measurable effect on resilience as measured by the CD-RISC, at least within the limitations of this study's sample size and context.

Table 9.13: Descriptive statistics for Connor-Davidson Resilience Inventory Scale (CD-RISC)

Pretest				Post-test			
Group	Mean	SD	95% CI	Mean	SD	95% CI	N
DBT-ST Group	64.00	6.71	58.12-69.88	65.80	6.54	60.07-71.53	5
Control Group	71.29	5.31	67.35-75.23	69.14	9.19	62.33-75.95	7
Total	68.25	6.77	64.42-72.08	67.75	8.04	63.20-72.30	12

Note: Values represent mean scores with standard deviations (SD). 95% Confidence Intervals (95% CI) are provided to indicate the precision of the mean estimates.

The descriptive statistics revealed a positive trend in the intervention group's mean scores from pretest 64.00 (SD = 6.71) to 65.80 (SD = 6.54) at post-test, indicating an improvement. Comparatively, the control group's mean scores from pretest 71.29 (SD = 5.31) to 69.14 (SD = 9.19) at post-test indicated a drop in resilience (Table 9.13). However, due to the sample size, these are only trends that merit further exploration in future research.

9.6.5.4. Interpretation of the ANOVA results for CD-RISC

The analysis suggests that there was no significant effect of the DBT-ST intervention on resilience scores as measured by the CD-RISC when compared to the control. The lack of significant findings might suggest that the intervention did not alter resilience in the ways measured by this scale. Alternatively, other factors not accounted for in the study may have influenced the results. The trend observed in the interaction term might warrant further investigation with a larger sample size or additional measures to fully capture the potential impact of the intervention.

9.6.6. Emotional Intelligence: Mayer Salovey and Caruso Emotional Intelligence Test (MSCEIT)

The inclusion of the MSCEIT in this study is based on its well-established role in measuring emotional intelligence (EI), specifically the ability to perceive, use, understand, and manage emotions. These abilities are particularly significant within the midwifery profession, where emotional regulation is essential for maintaining both personal and professional well-being. The

MSCEIT aligns with the research objectives outlined in Chapter 5, supporting the investigation of EI as a factor influencing midwives' capacity to manage stress. It assesses the impact of the DBT-ST intervention on enhancing these emotional skills among participants. The scoring of the MSCEIT variables is described in Appendix 16.

The MSCEIT was administered to the DBT-ST group in October 2021. Seven participants in this group completed this baseline measure. The MSCEIT was then administered to the control group at the beginning of December 2021. This group had a staggered six-week start but followed the same synchronous schedule as the former group. The group of eight was invited to complete this measure. One of the participants did not, leaving a total of seven who completed the baseline measure.

9.6.6.1. Gender and age differences

In order to assess the pretest and post-test scores of the Mayer Salovey and Caruso Emotional Intelligence Test (MSCEIT), preliminary tests were conducted. Mayer et al. (2002) advised that gender differences and levels of academic achievements affected levels of Emotional Intelligence Quotient (EIQ), with females and caring professions having higher scores than others. As all participants in both groups were females with similar midwifery education (bachelor's degree graduates), it was not necessary to conduct preliminary analyses on these factors. However, Mayer et al. (2002) specified that participants between the ages of 25 to 34 had generally higher EIQ than those who were aged 18 to 24. Therefore, to detect age effects, a preliminary analysis using Pearson correlations was completed.

For age and EI, the results showed at a 95% Confidence Interval: Lower = -0.521, Upper = 0.540; and for group and age at a 95% Confidence Interval: Lower = -0.710, Upper = 0.286. The findings revealed no statistically significant relationships between age, groups, and EI scores.

9.6.6.2. ANCOVA Results for the MSCEIT

Table 9.14: ANCOVA results for Mayer, Salovey and Caruso Emotional Intelligence Test (MSCEIT)

ANCOVA results MSCEIT Tests of Between-Subjects Effects for Post-test scores						
EIQ and Branches	Sum of Squares	df	Mean Squared	F	Sig.	Partial (η^2)
TOTAL EI	67.270	1	67.270	.754	.408	.077
Experiential EIQ	17.119	1	17.119	.090	.772	.010
Strategic EIQ	9.294	1	9.294	.164	.695	.018
Perceived Emotion (B1)	145.321	1	145.321	.919	.363	.093
Facilitating Thought (B2)	40.346	1	40.346	.349	.569	.037

Understanding Emotions (B3)	50.350	1	50.350	.410	.538	.044
Managing Emotions (B4)	414.837	1	414.837	2.564	.144	.222

Note: df = degrees of freedom; Sig. = p-value; df = degrees of freedom. The analysis includes data from participants who provided complete data sets at both pretest (n = 14) and post-test (n = 12).

An ANCOVA was conducted for the pretest and post-test scores for each variable of the MSCEIT. These ANCOVAs were conducted to assess the impact of the DBT-ST intervention on post-test scores, controlling for baseline pretest scores. The ANCOVA results revealed a non-significant main effect for post-test across all variables of the MSCEIT (Table 9.14).

The results of the ANCOVA for the MSCEIT variables, which measure different dimensions of emotional intelligence, indicated no significant differences between pre-test and post-test scores following the DBT-ST intervention. Unexpectedly, there was a decrease in overall EI scores, including in the specific branches assessed by the MSCEIT (Experiential EIQ, Strategic EIQ, and the four emotional intelligence branches).

The total EI showed no significant change from pre-test to post-test, $F(1, 11) = 0.754$, $p = .408$, $\eta^2 = .077$, with a decrease in post-test scores. Similarly, non-significant results were found across all MSCEIT branches, including Perceived Emotion (B1), $F(1, 11) = 0.919$, $p = .363$, $\eta^2 = .093$; Facilitating Thought (B2), $F(1, 11) = 0.349$, $p = .569$, $\eta^2 = .037$; Understanding Emotions (B3), $F(1, 11) = 0.410$, $p = .538$, $\eta^2 = .044$; and Managing Emotions (B4), $F(1, 11) = 2.564$, $p = .144$, $\eta^2 = .222$.

The reduction in EI scores across both the overall measure and specific branches was unexpected and will be discussed further in Chapter 10, particularly in relation to possible factors such as participant engagement, intervention delivery mode, and external stressors during the study period.

9.6.6.3. Descriptive Statistical Analysis of MSCEIT pretest and post-test scores

Table 9.15: Descriptive Statistical Analysis of MSCEIT pretest and post-test scores

Pretest	Post-test

MSCEIT Variables	Group	Mean	SD	N	Mean	SD	N
Total E.I.	Intervention Group	94.66	14.09	7	87.72	4.20	5
	Control Group	108.47	7.76	7	103.07	12.99	7
	Total	101.56	13.07	14	96.67	12.69	12
Experiential EIQ	Intervention Group	99.36	16.30	7	90.08	15.19	5
	Control Group	106.07	11.55	7	98.76	14.76	7
	Total	102.71	14.01	14	95.15	14.92	12
Strategic EIQ	Intervention Group	92.77	12.43	7	91.58	9.31	5
	Control Group	109.49	11.04	7	107.04	12.54	7
	Total	101.13	14.24	14	100.60	13.44	12
Perceived Emotion (B1)	Intervention Group	100.58	15.52	7	88.93	20.99	5
	Control Group	101.98	10.47	7	99.79	14.25	7
	Total	101.28	12.74	14	95.27	17.38	12
Facilitating Thought (B2)	Intervention Group	93.74	10.24	7	96.36	5.58	5
	Control Group	109.70	8.52	7	98.33	13.38	7
	Total	101.72	12.27	14	97.51	10.49	12
Understanding Emotions (B3)	Intervention Group	94.07	17.70	7	95.68	7.67	5
	Control Group	111.90	14.35	7	108.15	15.50	7
	Total	102.99	18.03	14	102.96	13.92	12
Managing Emotions (B4)	Intervention Group	94.66	7.27	7	89.25	11.32	5
	Control Group	101.41	6.03	7	101.53	12.83	7
	Total	98.04	7.31	14	96.41	13.28	12

The descriptive statistics for the MSCEIT variables, presented in Table 9.15, reveal a general decrease in emotional intelligence scores across both the Intervention and control group from pre-test to post-test. This trend was observed in the overall EI (Total EI) as well as in specific branches, including Experiential EIQ, Strategic EIQ, and the four branches of EI assessed by the MSCEIT: Perceived Emotion (B1), Facilitating Thought (B2), Understanding Emotions (B3), and Managing Emotions (B4).

9.6.6.4. DBT-ST Group

In the intervention group, EI scores decreased across most variables. For example, the Total EI mean dropped from 94.66 (SD = 14.09) at pre-test to 87.72 (SD = 4.20) at post-test. Similar decreases were noted in Experiential EIQ, Perceived Emotion (B1), and Managing Emotions (B2). The most pronounced decline was seen in the Perceived Emotion branch (B1), where the mean

dropped from 100.58 to 88.93. Furthermore, Managing Emotions (B4), a key target of the DBT-ST intervention, also saw a considerable reduction in mean score, from 94.66 to 89.25.

9.6.6.5. Control Group

The control group also experienced decreases in EI, although these were generally less pronounced. For instance, the Total EI mean dropped from 108.47 (SD = 7.76) to 103.07 (SD = 12.99). Interestingly, the Managing Emotions branch (B4) remained relatively stable in the control group, with post-test scores remaining near pre-test levels (pre-test: 101.41, post-test: 101.53), which contrasted with the larger decline observed in the DBT-ST group.

9.6.6.6. Comparison between groups

The intervention group had lower pre-test means than the control group across most MSCEIT variables (e.g., Total EI: intervention group = 94.66, control group = 108.47). The post-test scores show that the DBT-ST group experienced a more pronounced decline in some areas, such as Total EI (mean dropped from 94.66 to 87.72) and Perceived Emotion (B1) (mean dropped from 100.57 to 88.93).

Conversely, while the control group also saw decreases in some variables, the declines were less abrupt. Although the Facilitating Thought (B2) variable increased slightly in the intervention group and decreased for the control group, the intervention group still scored lower overall.

Both Strategic EIQ and Experiential EIQ showed slight declines in mean scores for both groups. However, the intervention group saw a smaller decrease for Strategic EIQ (pre-test: 92.77, post-test: 91.58), which could suggest that, while EI measures dropped overall, certain cognitive aspects such as strategic emotional management may have been preserved.

Interestingly, Managing Emotions (B4) shows a sharper decline in the intervention group (mean dropped from 94.66 to 89.25) than the control group, which remained relatively stable (mean 101). Given that managing emotions is a key component of the DBT-ST intervention, this finding is particularly unexpected and warrants further investigation in Chapter 10.

9.6.6.7. Variability between groups

The standard deviations provide insight into the variability within each group. For example, the intervention group shows a wider range of scores in the post-test for Perceived Emotion (B1) (SD = 20.99) compared to the pre-test (SD = 15.52), which suggests that individual scores became more varied after the intervention.

Conversely, the control group tends to have lower variability in scores in the pre-test and post-test for most variables, with smaller standard deviations (e.g., Managing Emotions B4 post-test: SD = 12.82 for the control group compared to SD = 11.31 for the DBT-ST group).

Variability in scores, as indicated by the standard deviations, increased in some variables, particularly in the intervention group at post-test. Overall, while the intervention group showed a general decline in EI scores, the control group maintained more stability, particularly in key areas like Managing Emotions.

9.6.6.8. Other notable distinctions

The reduction in sample size from pre-test to post-test (14 to 12) is notable. This drop may have contributed to the increased variability in scores, particularly in the intervention group, where the post-test sample was smaller (N = 5).

9.6.6.9. Summary of pretest and post-test MSCEIT scores

Overall, while the intervention group showed a general decline in emotional intelligence scores, the control group maintained more stability, particularly in key areas like Managing Emotions. These unexpected findings raise important questions about the effectiveness of the DBT-ST intervention in this context and will be explored further in Chapter 10.

9.6.7. Descriptive Statistics of MSCEIT at Baseline between groups

On closer observation of the descriptive statistics for the MSCEIT, the mean scores at pretest revealed that the intervention group had lower scores across all variables compared to the control group (see Table 9.15).

9.6.7.1. Baseline Total EI

The Total EI scores for the intervention group (Mean = 94.66) fall within the *Low Average* range (90–99). This suggests that, overall, participants in the intervention group had EI levels that were below what would be considered *Competent*. Conversely, the control group's Total EI (Mean = 108.47) fell within the *High Average* range, which indicates that this group had EI scores that were generally higher than the DBT-ST group, but still below the *Competent* level.

9.6.7.2. Baseline Experiential EIQ

The Experiential EIQ scores for the DBT-ST group (Mean = 99.36) were situated at the upper end of the *Low Average* range, just below *High Average*. This indicates that participants in the intervention group had relatively average emotional experiences, but suggests that there is room for improvement for these abilities. Conversely, the control group's Experiential EIQ (Mean =

106.07) fell within the *High Average* range, which indicates that these participants had above-average experiential emotional intelligence, but still remain below the *Competent* level.

9.6.7.3. Baseline Strategic EIQ

The Strategic EIQ for the intervention group (Mean = 92.77) also falls within the *Low Average* range, which indicates that participants' abilities to manage and understand emotions strategically were slightly below average. Conversely, the Strategic EIQ for the control group (Mean = 109.49) scored at the upper end of the *High Average* range, close to the *Competent* range, which suggests that this group has a relatively good ability to manage and understand emotions.

9.6.7.4. Baseline Perceived Emotion (B1)

The Perceived Emotion (B1) for the intervention group (Mean = 100.58) falls into the *High Average* range (100–109). This suggests that participants were relatively adept at perceiving emotions in themselves and others, with an above-average capacity for emotional perception. Similarly, Perceived Emotion (B1) for the control group (Mean = 101.98) also fell within the *High Average* range. The mean scores for both groups show that they were relatively skilled at perceiving emotions.

9.6.7.5. Baseline Facilitating Thought (B2)

The Facilitating Thought (B2) variable for the intervention group (Mean = 93.73) falls within the *Low Average* range, which indicates that participants' ability to use emotions to facilitate thinking and problem solving was below average. Conversely, Facilitating Thought (B2) for the control group (Mean = 109.70) fell within the *High Average* range, which suggests that the participants had a stronger ability to use emotions to facilitate thought and problem solving than the intervention group.

9.6.7.6. Baseline Understanding Emotions (B3)

The Understanding Emotions (B3) variable for the intervention group (Mean = 94.07) falls in the *Low Average* range, which suggests that these participants had a below-average capacity to understand complex emotional information. Conversely, the control group's scores for Understanding Emotions (B3) (Mean = 111.90) fall within the *Competent* range (110–119), which indicates that participants in this group had a strong ability to understand emotions.

9.6.7.7. Baseline Managing Emotions (B4)

The Managing Emotions (B4) variable for the intervention group scores (Mean = 94.66) falls within the *Low Average* range, which suggests that participants had a below-average ability to

regulate emotions in themselves and others. Conversely, the control group's scores for Managing Emotions (B4) (Mean = 101.41) fell within the *High Average* range, indicating above-average ability to manage emotions, though not as high as in the *Competent* range.

The differences between the Intervention and control groups' pre-test scores indicate a disparity in baseline emotional intelligence, which is important for interpreting the impact (or lack thereof) of the DBT-ST intervention later on. It might suggest that the intervention group was more in need of an emotional intelligence intervention, but the lower pre-test scores could also indicate challenges in bringing about meaningful change within a short intervention period.

9.6.8. EI Levels at Baseline Across participants

Table 9.16: MSCEIT total and Branch standard scores

Table 9.16 provides the frequency distribution of MSCEIT scores for the total EI and its respective

MSCEIT Branches	Scores Ranges							N = 14
	Develop <69	Improve 70–89	Lower Average 90–99	Higher Average 100– 109	Competent 110–119	Strength 120–129	Significant Strength 130>	
Total E.I.	0	3	3	4	4	0	0	14
Experiential EIQ	0	4	3	2	4	1	0	14
Strategic EIQ	0	3	4	1	5	1	0	14
Branch 1 Perceiving Emotions	0	2	5	3	3	1	0	14
Branch 2 Facilitating Thought	0	3	2	6	2	1	0	14
Branch 3 Understanding Emotions	0	5	2	2	2	2	1	14
Branch 4 Managing Emotions	0	2	7	4	1	0	0	14

branches across the MSCEIT scoring ranges according to Mayer et al. (2002). Comparing the 14 participants' scores in each variable of the MSCEIT to the scoring ranges enables a better understanding of the overall EI levels in this study and future indications for developments.

Further visualisation of these results (Table 9.16) is displayed in the following Figures 9.3 to 9.8. The figures chart the individual participant scores within each group of the MSCEIT. The observable trends are represented across individual participants and the two groups are distinguished by colour: intervention group, Yellow; control group, Blue. The level of competence (broken red line) is set at 110, which is the lowest score for competence according to the MSCEIT manual (Mayer et al. 2002) (see Appendix 16). To protect participant anonymity in this small sample, the figure only displays the Competence threshold. Individual classification bands (e.g. Improve, Strength) are not visually marked, though all categories are fully described in the accompanying narrative.

9.6.8.1. Total Emotional Intelligence (EIQ)

Figure 9.2 displays the Total Emotional Intelligence (EIQ) scores of participants across both the intervention and control groups. Four participants scored in the *Competent* range (110–119), indicating adequate emotional functioning. A further four were classified within the *Higher Average* range (100–109), suggesting moderately developed EI skills. Three participants scored in the *Lower Average* range (90–99), and three in the *Improve* range (≤ 89), both of which reflect below-average ability to perceive, use, understand, or manage emotions. No participants achieved scores within the *Strength* (120–129) or *Significant Strength* (≥ 130) categories. These findings suggest that while a minority demonstrated competent EI ability, the majority of participants displayed average or below-average scores, indicating a potential area for targeted development.

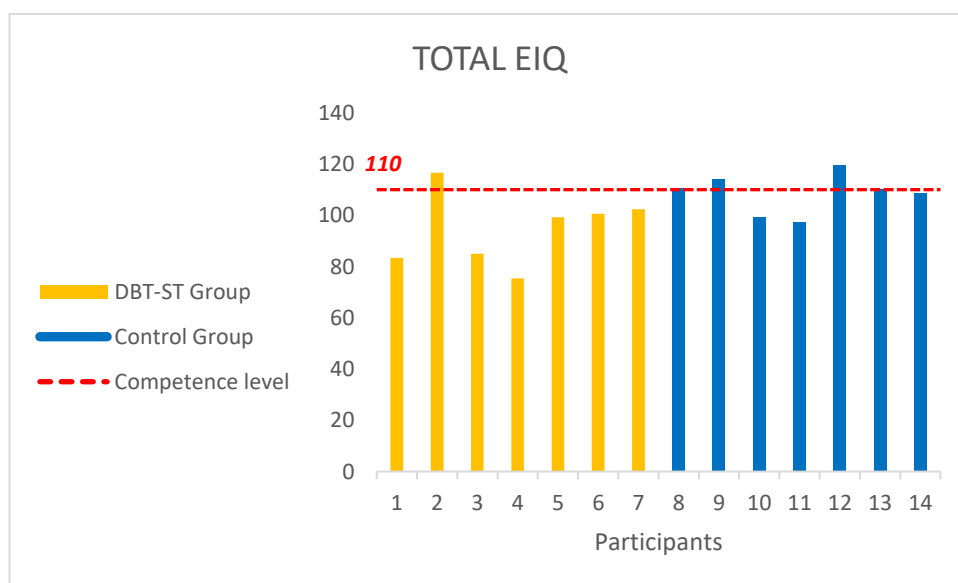


Figure 9.2: Total EIQ score of the MSCEIT

9.6.8.2. Experiential Emotional Intelligence

Figure 9.3 shows the Experiential Emotional Intelligence (EIQ) scores of participants across both groups. This branch of the MSCEIT measures the ability to perceive emotions and to use emotional experiences to facilitate thinking, without necessarily requiring deeper understanding of the emotional states involved. These skills are reflected in how individuals manage their behaviours in response to emotionally charged situations.

Across the sample, four participants scored in the *Competent* range (110–119), with one participant achieving a *Strength* score (126), indicating a well-developed ability to perceive and respond to emotional cues. Two participants scored within the *Higher Average* range (100–109). In contrast, seven participants were classified in the *Improve* or *Lower Average* ranges (≤ 99), suggesting a relatively underdeveloped ability to experience and recognise emotions. These findings imply that a considerable portion of participants may benefit from interventions designed to strengthen perceptual and experiential aspects of emotional intelligence.

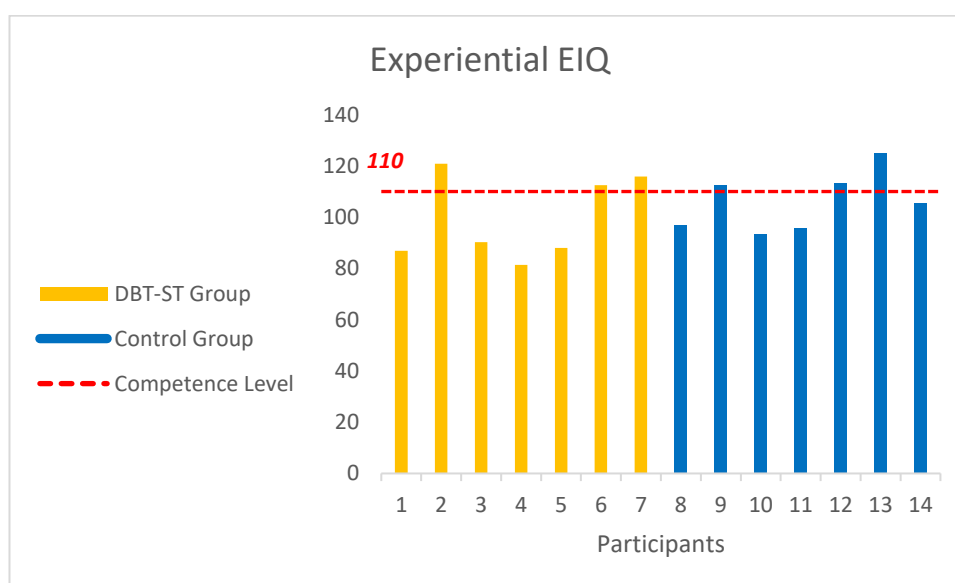


Figure 9.3: Experiential EIQ, MSCEIT

9.6.8.3. Strategic Emotional Intelligence

Figure 9.4 presents the Strategic Emotional Intelligence (EIQ) scores of participants at baseline. This domain of the MSCEIT assesses the ability to understand and manage emotional information, particularly in relation to recognising patterns in emotional experiences and using this insight to regulate emotions in oneself and others.

One participant achieved a *Strength* score (≥ 120), and five others were classified in the *Competent* range (110–119), indicating well-developed abilities in strategic emotional reasoning. One participant scored in the *Higher Average* range (100–109). In contrast, four participants were classified as *Lower Average* (90–99), and three participants scored in the *Improve* range (≤ 89), suggesting limited capacity to apply emotion-related reasoning in complex situations. These results echo the patterns observed in Experiential EIQ and reflect the variability in emotional management skills across the sample.

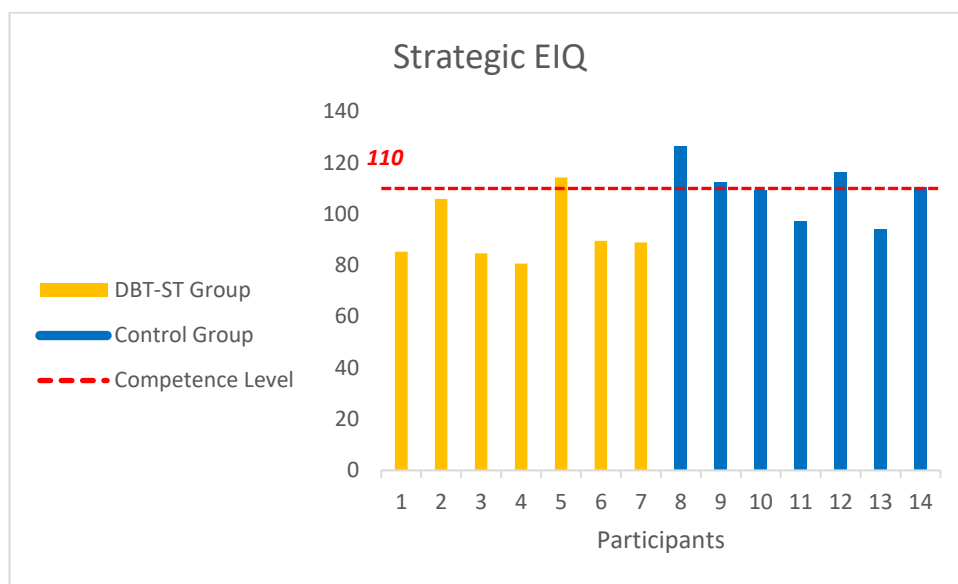


Figure 9.4: Strategic EIQ, MSCEIT

9.6.8.4. Perceiving Emotions (Branch 1)

Figure 9.5 shows the individual scores for the Perceiving Emotions (B1) branch of the MSCEIT. This domain assesses the ability to perceive and express emotions accurately, forming the basis for identifying emotional states in oneself and others (Mayer et al., 2002).

One participant achieved a *Strength* score, and three participants were classified as *Competent*, suggesting a relatively well-developed ability in this foundational emotional skill. Among the remaining ten participants, five were in the *Lower Average* range, two in the *Improve* category, and three in the *Higher Average* range. These findings indicate that although a small subset of participants displayed strong emotional perceptiveness, the majority of the sample demonstrated only moderate or below-average abilities in this domain.

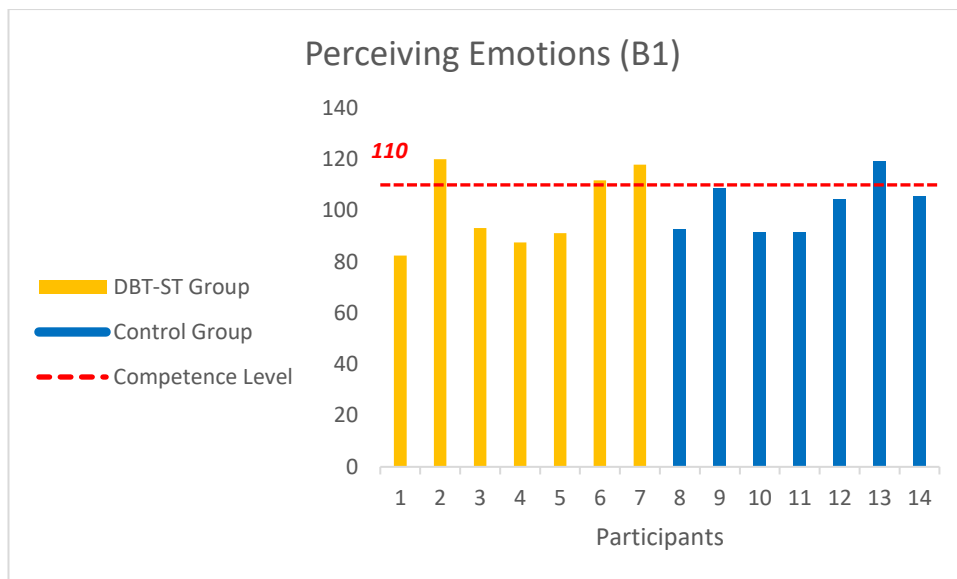


Figure 9.5: Chart of Perceiving Emotions Branch (B1), MSCEIT

9.6.8.5. Facilitating Thought (Branch 2)

Figure 9.6 shows the individual scores on the Facilitating Thought (B2) branch of the MSCEIT. This domain measures the ability to use emotions to support reasoning, decision making, and problem solving.

One participant achieved a *Strength* score (≥ 120), and two others were classified in the *Competent* range (110–119), reflecting an advanced ability to integrate emotional states into cognitive processes. Six participants scored within the *Higher Average* range (100–109), indicating a functional, though not highly developed, capacity in this area. Two participants were categorised as *Lower Average* (90–99), and three fell within the *Improve* range (≤ 89), suggesting limited ability to use emotional input to guide thought and reasoning.

Overall, ten out of fourteen participants scored below the Competent threshold. Notably, these lower scores were concentrated in the intervention group, whereas the control group participants demonstrated comparatively stronger abilities in this branch of emotional intelligence. These findings suggest that the ability to use emotions to facilitate cognitive tasks was underdeveloped in a substantial portion of the sample, particularly amongst those in the intervention group.

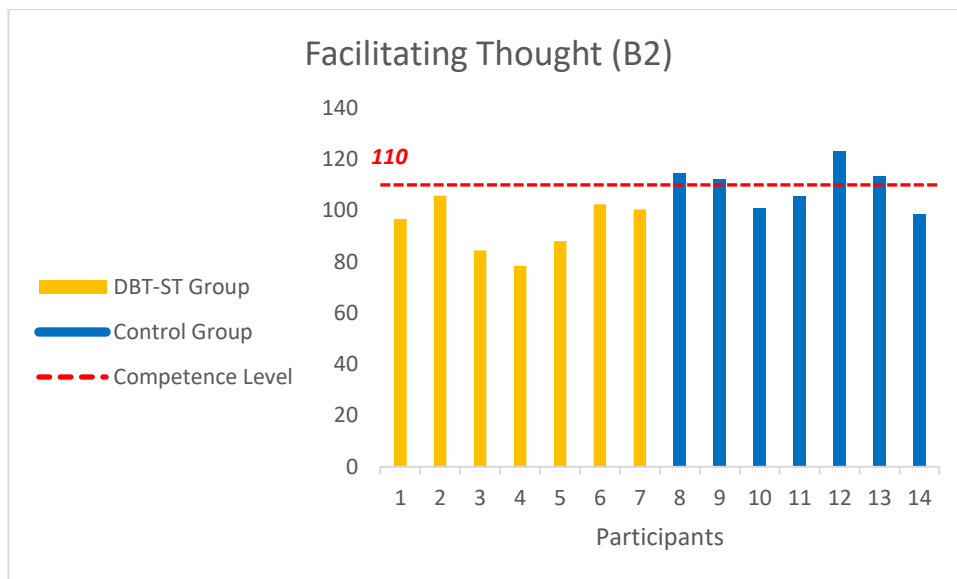


Figure 9.6: Chart of Facilitating Thought (B2), MSCEIT

9.6.8.6. Understanding Emotions (Branch 3)

Figure 9.7 shows the individual scores across both groups for the Understanding Emotions (B3) branch of the MSCEIT. This domain assesses the ability to label emotions, understand their progression over time, and recognise complex emotional blends that can influence behaviour.

The distribution of scores in this branch was notably varied. One participant achieved a Significant Strength score (≥ 130), two participants were classified within the Strength range (120–129), and two participants reached the Competent level (110–119). Two others scored in the Average range (100–109). However, the majority ($n = 7$) fell below the Competent threshold, with five participants in the Improve range (≤ 89) and two in the Lower Average category (90–99).

These findings suggest that while a minority of participants demonstrated advanced emotional understanding, the ability to comprehend and reason about complex emotional states was generally limited within the wider sample.

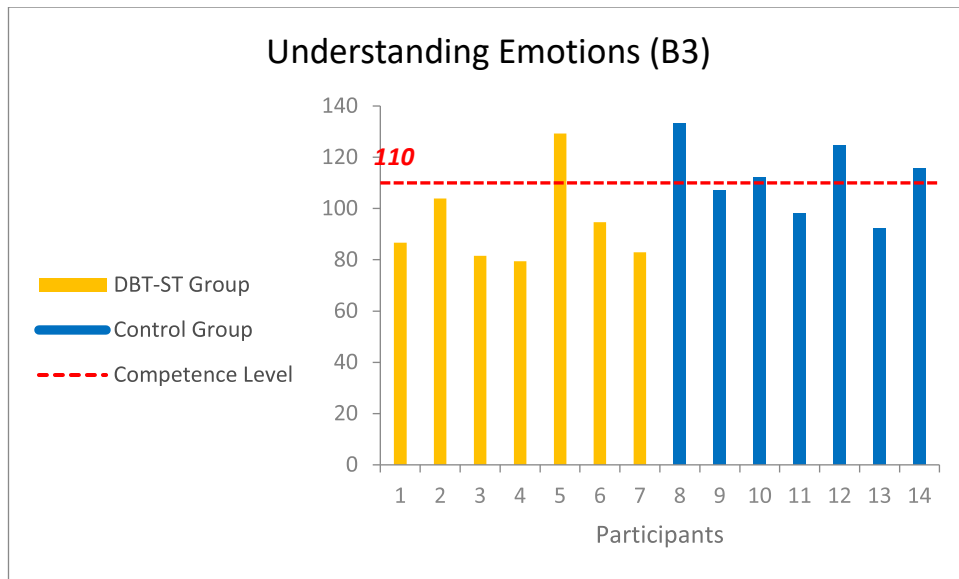


Figure 9.7: Chart of Understanding Emotions Branch (B3), MSCEIT

9.6.8.7. Managing Emotions (Branch 4)

Figure 9.8 displays the individual scores for the Managing Emotions (B4) branch of the MSCEIT. This ability involves recognising and regulating emotional responses in oneself and others to support appropriate behavioural outcomes and emotional balance. It reflects the capacity for emotional awareness, acceptance, and problem solving under emotionally charged conditions.

This branch reflected the lowest levels of competence across the four domains. Only one participant achieved a *Competent* score (≥ 110), while nine participants fell within the *Improve* (≤ 89) or *Lower Average* (90–99) ranges, suggesting considerable difficulty in emotional self-regulation. Four participants scored within the *Average* range (100–109), indicating a more moderate ability.

These results show that the majority of participants demonstrated limited ability in this branch of emotional intelligence. Most participants scored below the Competence threshold, with only a small number showing moderate ability. This distribution reflects generally low scores in the ability to manage emotions, relative to the other MSCEIT branches.

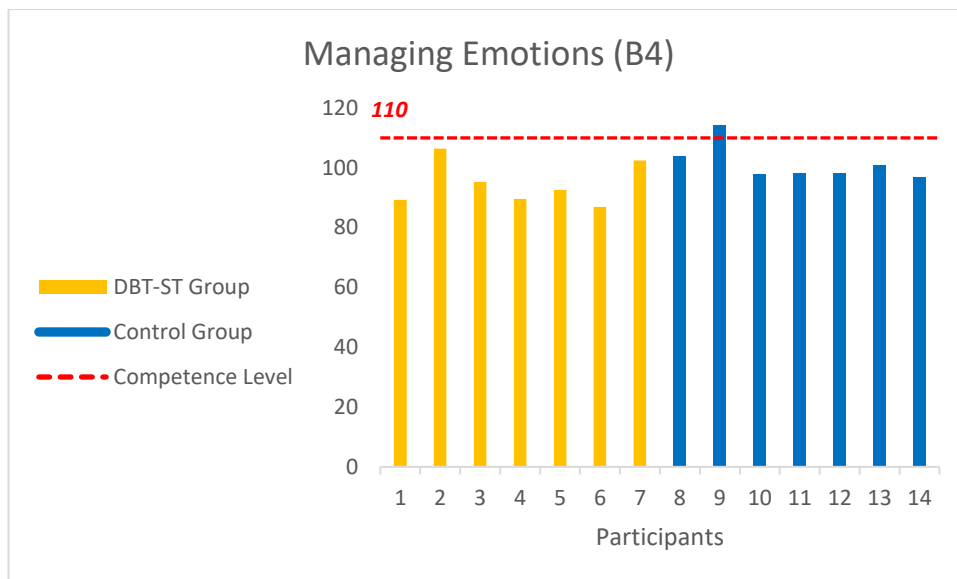


Figure 9.8: Chart of Managing Emotions Branch (B4), MSCEIT

9.6.8.8. Summary of MSCEIT's Descriptive and Scoring Results

The distribution of baseline scores indicates that the majority of participants exhibited emotional intelligence levels below what would be considered *Competent* according to the MSCEIT manual (Mayer et al. 2002). While a few participants demonstrated strengths in specific branches, most had moderate emotional intelligence abilities, particularly in Managing Emotions and Understanding Emotions. These findings highlight the potential benefit of an emotional intelligence intervention such as DBT-ST, which could support the development of these essential skills.

9.7. Summary

This chapter has presented the findings of the DBT for Midwives Pilot. The quantitative data from the pretest and post-test measures of the ELS showed significant effect after attending the DBT-ST intervention compared to the control group. The MBI showed a significant effect on Emotional Exhaustion but not for the remaining dimensions of this measure. Furthermore, the DERS, CD-RISC, and MSCEIT did not show any effect. The URICA measure revealed a low disposition for readiness for change, which may be a factor to consider. However, the MSCEIT descriptive scores and baseline scores were largely below the *Competent* range, with most participants demonstrating emotional intelligence levels in the *Low Average* to *High Average* range. These results suggest that emotional intelligence, particularly in areas such as managing emotions,

remains a challenge and merits further exploration. The following chapter will discuss the above findings within the context of the literature.

Chapter 10. Discussion

10.1. Chapter Overview

This discussion chapter elucidates the findings of research into Dialectical Behaviour Therapy Skills Training (DBT-ST) within the midwifery profession. Conducted amidst the exceptional challenges of the COVID-19 pandemic, this study aimed to assess the feasibility and preliminary effectiveness of DBT-ST in enhancing emotional well-being factors amongst early career midwives (ECM). This chapter will critically engage with the study's outcomes and offer a comprehensive analysis of its implications for the midwifery profession, the adaptability and reception of DBT-ST in this non-clinical population, and the broader implications for healthcare professionals' training during crises.

10.2. Introduction

The research was structured as a quasi-experimental design, contrasting an intervention group that participated in a six-week DBT-ST programme with a control group receiving standard maternity service induction training and preceptorship programme. The results, while mixed, provide valuable insights into the potential preliminary effectiveness and limitations of implementing a psychoeducational intervention in high-pressure healthcare environments amidst the third wave of the COVID-19 pandemic. This chapter revisits the research objectives, positioning the study's findings in relation to existing literature on midwifery challenges, psychoeducational training, and professional engagement during the pandemic.

Furthermore, the chapter will explore the inherent challenges encountered during the study, including deviations from the original protocol and the dual role of the researcher. These reflections will enhance understanding of the methodological complexities and ethical considerations inherent in conducting applied psychoeducational research within professional settings. Each of these aspects will be critically examined and reflected upon to articulate the study's methodological and contextual significance. These reflections will also inform the discussion of its original contributions to the evidence base, in relation to the midwifery profession and the application of DBT-ST within non-clinical populations, which will be considered in greater detail in the concluding chapter.

10.3. Overview of Quantitative Outcomes

The pilot study aimed to evaluate the preliminary effects of the DBT-ST intervention on midwives' emotional wellbeing by assessing changes in emotional regulation difficulties, emotional labour, burnout, resilience, and emotional intelligence. These constructs were selected for their relevance to the psychoeducational content of the DBT-ST programme and their alignment with the key themes identified in the scoping review presented in Chapter 3 and 5. It was anticipated that participation in the intervention would lead to improvements in these measures at post-test.

The results present differing outcomes, which may reflect the multifactorial drivers operant in this pilot rather than the effectiveness of the DBT-ST intervention alone. However, the pilot study highlighted deficiencies in the empirical evidence and knowledge base regarding individual differences and emotion regulation (ER) factors within this population, as highlighted in the scoping review of this thesis. Therefore, despite the limited preliminary effectiveness of its intervention, the outcomes of the pilot provide valuable insights into ER factors relevant to furthering this type of research in this professional field.

The outcomes showed that the Emotional Labour Scale (ELS) yielded statistically significant results, suggesting an improvement in the management of emotional demands. The Maslach Burnout Inventory (MBI) also yielded statistically significant results for the Emotional Exhaustion subscale, which is a central factor in the determinants of burnout. However, Depersonalisation and Personal Accomplishment subscales showed non-significant changes, highlighting areas where the intervention may require further adaptation or support. Moreover, neither the Connor-Davidson Resilience Scale (CD-RISC) nor the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) showed significant changes, pointing to potential limitations in the intervention's duration, study design (measurement intervals), or the baseline capabilities of participants. Although the DERS and resilience measures, including overall burnout, did not show significant results, both measures showed improvements, suggesting positive trends. These non-statistically significant findings must be seen in light of the small sample size, low power, and methodological application of the DBT-ST programme in this pilot rather than the essentials of the DBT-ST programme itself.

The first attempt to run this novel intervention in the midwifery profession rendered valuable lessons regarding adaptations required for this particular population. Therefore, the multifactorial drivers compel a solution-oriented review of the factors operant in this pilot, to

develop meaningful and proactive strategies to address the developing knowledge for the effective future application of DBT-ST in this professional population.

10.4. URICA Outcomes

The University Rhode Island Change Assessment (URICA) was administered to the intervention group before the start of the intervention, as described in Section 8.6.1.6, to assess their readiness for change, focusing on their preparedness to enhance their well-being.

The results of URICA revealed a mean score of 8.50 (SD = .445), with a minimum of 6.71 and a maximum of 9.70. This mean score falls within the contemplation and pre-contemplation stages (see Section 9.5.1), which are understood to represent a low commitment to engage in psychological improvement (McConaughy et al. 1989; Norcross et al. 2022). It is not possible to compare the URICA results to midwives in other studies because this measure has not been applied to this population before. Although informative on participants' levels of readiness of engagement, the findings do not elucidate the motivational focus of participants to join the pilot.

In this PhD study, the majority of participants were newly qualified midwives (NQM) entering their first appointment. Speculatively, awareness of the stakeholder's support for the intervention may have inadvertently induced pressure on newly appointed staff to be seen to make the '*right choice*'. From the literature, NQMs strive to be accepted as effective team members (Kool et al. 2020), proving their worthiness by building confidence (Clement et al. 2013; Black 2018) and building relationships (Fenwick et al. 2012; Simane-Netshisaulu and Maputle 2021). Despite their newly acquired autonomy, newly qualified midwives remain particularly vulnerable during the transition into practice, a point highlighted by Griffiths et al. (2019). Their professional status may not yet translate into confidence or perceived control, especially when navigating expectations from senior staff and organisational structures. Agency and control are essential for midwives at every career stage (Pollard 2003; Nolan et al. 2022). Moreover, the additional demand of taking on new knowledge and skills in this context and setting presented distinctive competing pressures, even if choices to join the study were inspired by curiosity or genuine interest in the acquisition of new coping skills. However, given the effects of the pandemic on their levels of stress and motivation (McGrory et al. 2022), DBT-ST may have required more commitment than they had initially considered. Rather than identifying the readiness of participants to be active in the management of their problems, the URICA findings may reflect the complex interrelated challenges of running such interventions under pandemic conditions. Although there is limited midwifery-based research on midwives' participation in

interventions conducted within the practice setting, disengagement and attrition rates amongst healthcare staff are often high due to competing clinical priorities (Kunzler et al. 2020; Chmielewski and Łuczyński 2021; Prudenzi et al. 2022).

10.5. Outcomes for Emotional Labour Scale (ELS)

The ELS was administered to both the intervention and control groups at two time points: pre-intervention and post-intervention (Chapter 9, Section 9.6.2). The results revealed a statistically significant change in patterns of emotional labour among participants. Descriptive analysis of the overall ELS scores between the two groups from pre- to post-intervention indicated significant shifts that may have implications for understanding the impact of the DBT-ST intervention.

The ANCOVA analysis demonstrated a significant effect of the DBT-ST intervention on reducing emotional labour scores from pre- to post-intervention. This indicates a substantial influence of the intervention, with a particularly strong effect seen when controlling for initial emotional labour levels (*partial eta squared* .682; see Section 9.6.2.3). These findings suggest that the intervention meaningfully impacted emotional labour, with its effectiveness likely influenced by the participants' initial conditions. Such results highlight the potential of DBT-ST to modify emotional labour dynamics in midwifery practice, aligning with initial expectations and supporting the need for further investigation into its application across different settings.

The descriptive analysis showed a trend toward reduced emotional labour in the intervention group, but an increase in the control group. This pattern suggests that the DBT-ST intervention may help stabilise emotional labour, highlighting its potential utility in midwifery settings. Furthermore, the subscale analysis revealed that, while Surface and Deep Acting scores remained relatively stable in the intervention group, the control group experienced increases, suggesting a higher engagement in emotional labour. Such findings support the intervention's potential to moderate emotional responses, essential for reducing burnout among midwives.

Therefore, ANCOVA results concur with the descriptive analysis that suggests the ELS levels of the intervention group were positively stabilised when comparing the overall increased emotional labour for the control group. These findings highlight the potential for DBT-ST to help midwives manage the emotional aspects of their practice, particularly in high-pressure or emotionally charged circumstances. By stabilising or reducing the emotional labour, particularly

in Deep Acting and Surface Acting, DBT-ST may help midwives maintain better emotional balance and reduce burnout.

10.5.1. Comparative Analysis

The Emotional Labour Scale has been primarily applied within nursing studies. Its application in midwifery has been notably sparse. This is surprising given the relevance of this construct in midwifery work, including the midwife/mother relationship, which was argued in the seminal work of Hunter (2001; 2010) and Hunter et al. (2008).

The ELS scores in this study were notably higher across all ELS variables compared to Delgado et al.'s (2020) study that involved mental health nurses. This was particularly so for the control group at post-test. However, Delgado and colleagues' study was conducted before the COVID-19 pandemic. Similarly, this pilot's ELS scores were also higher than those of novice or pre-retirement nursing staff (Theodosius et al. 2020). Although there is a consistent reference to midwives' emotional well-being in the literature (John and Parsons 2006; Rayment 2015; Kirkham et al. 2018; Plimmer et al. 2022), few scholars have consistently considered this factor empirically. To date, there is limited empirical evidence exploring levels of emotional labour in midwifery.

10.5.2. Key Considerations for the ELS Outcomes

While the DBT-ST intervention indicated a positive impact on reducing emotional labour, these outcomes must be considered within the context of several potential confounding factors that could have influenced the results.

As considered in Chapter 8, Section 8.4.2, the staggered start of six weeks between groups, although managed through a synchronous schedule, introduced variability in external conditions that may have differentially impacted each group. Such variability could influence participants' baseline stress levels and their responsiveness to the intervention. Future research should aim to employ a more controlled study design to minimise such variables.

The COVID-19 pandemic was a significant confounder affecting stress levels and workloads. The pandemic's impact on midwives' and health professionals' stress levels and workloads cannot be overstated and likely interacted with the intervention's effectiveness (RCM 2020; Benfante et al. 2020; Catling et al. 2022; LoGiudice 2024).

Moreover, the transition of both groups from supernumerary status to substantive roles during the study potentially increased stress levels, complicating the interpretation of the ELS results. This variable may have increased both groups' stress levels. Early career midwives (ECMs) are

particularly prone to fear of their newly acquired responsibility (Leinweber and Rowe 2010; Harvie et al. 2019; Cull et al. 2020; Minooee et al. 2021). The fear of making a mistake is a profound factor in raising this initial stress (Dahlen and Caplice 2014). The expected outcomes should have been reflected in an increase in ELS for the intervention group as seen with the control group's increased scores. However, the findings of the ELS do not reflect this; instead, the ELS showed a decrease, albeit slight, or rather a maintenance of their ELS levels at post-test despite the likely raised anxiety in their new work status. Given these changes, future studies could benefit from a longitudinal design that assesses stress levels and emotional labour over time to better understand the dynamics of these transitions.

Despite the consistent support provided through preceptorship programmes, the overlapping effects of this support with the DBT-ST intervention could have confounded the specific impact of the intervention. However, as both groups received similar support, it would be expected that any mitigating effects would be reflected in decreased scores for the control group, which was not observed in the ELS outcomes. Future interventions should consider these variables to isolate the effects of the DBT-ST more effectively. Implementing a parallel support system as a constant across study conditions could help clarify the distinct contributions of the intervention.

Another potential confounding variable may have been introduced by the dropouts. There were three dropouts by post-test: one during the intervention and one after the intervention in the intervention group; and one in the control group after the pretest. These dropouts may have skewed the results. The reduction in sample size due to dropouts, particularly in this small-scale study, diminishes its statistical power. This reduction added to the challenges of detecting a true effect of the intervention, which potentially led to Type II errors where no significant effect is found when one may exist. The disengagement of participants is discussed in Section 10.12.3.5.

The consistency of the intervention's impact across different baseline conditions suggests its potential efficacy in modifying emotional labour outcomes. However, caution is advised in attributing differences solely to the intervention. Future research should control for these confounding factors more rigorously or design studies that can isolate the effects of the intervention more effectively. Additionally, replicating the study under different conditions and with larger sample sizes could help verify the findings and assess the generalisability of the intervention's efficacy.

10.5.3. ELS Findings and the Midwifery Literature

In line with the outcomes of the scoping review in Chapter 3, emotional labour and emotion work are key factors in midwifery practice (Hunter 2001, 2005; Hunter et al. 2008; Deery and

Fisher 2010). Hunter (2001; 2005; 2010) argues that the management and regulation of emotions by midwives, necessary to meet professional demands and foster relationships with women, is central to understanding their daily experiences. Midwives engage in significant emotional labour while navigating the intimate and emotionally charged environment of the perinatal period. Emotional labour is often unacknowledged and undervalued (Deery and Fisher 2010; Sinatti et al. 2025) but inherently requires both interpersonal and intrapersonal skills. A study by Cramer and Hunter (2019) highlighted various factors that influence midwives' emotional well-being and argued that many aspects of the profession, traditionally viewed as inherent and unchangeable, can be recognised as modifiable. The concept of modifiable emotional risks aligns with foundational theories in midwifery literature. Recognising emotional labour as a modifiable risk factor that requires both interpersonal and intrapersonal skills suggests the well-being of midwives can be improved by the development of these skill sets.

10.5.4. ELS Findings and DBT-ST

While the DBT-ST intervention primarily influenced emotional labour outcomes, its broader effects are perhaps suggestive of interpersonal effectiveness skills developed through the DBT Skills curriculum. These skills are designed to enhance interaction quality, a concept referred to as relationship effectiveness (Linehan 1993). The quality of relationships is a significant predictor of well-being (Hunter 2001; Deery 2005) and is implicated in intentions to leave the midwifery profession (Cramer and Hunter 2019; Harvie et al. 2019; Cull et al. 2020). Improving interpersonal relationships is crucial for sustaining well-being (Cramer and Hunter 2019). It follows that effective interpersonal strategies can support resilience, thereby improving the well-being of midwives, their clients, and colleagues (Hunter and Warren 2014). In DBT-ST, relationship effectiveness skills focus on maintaining and enhancing relationships by balancing and considering the needs of both self and others (Linehan 1993). Specifically, the GIVE skills (be Gentle, act Interested, Validate, and use an Easy manner) include “validation” as a fundamental tool for improving relationship quality (Linehan 2015a). This skill emphasises empathy and understanding, encouraging midwives to “walk in the other person’s shoes” and recognise the legitimacy of the other person’s experiences and reactions (Linehan 2015a). By fostering a more genuine and empathic connection, midwives can reduce the need for surface acting. This reduction can decrease internal conflict or pseudo-cohesion (Deer and Fisher 2010; Deery 2005). In turn, this may lower emotional dissonance, which has been linked to burnout and emotional exhaustion (Grandey and Sayre 2019). These factors can adversely affect resilience (Hunter and Warren 2014).

Furthermore, the use of validation skills not only reduces emotional labour but also enhances relationship effectiveness, which can improve midwives' personal well-being and foster trust amongst women and colleagues (Hunter et al. 2008). This trust is crucial given its previously identified role as a persistent negative factor in midwifery culture (Kirkham 2007; Catling et al. 2017; Stoll et al. 2018; Catling and Rossiter 2019). By improving workplace culture, validation skills create a more supportive emotional environment. Accordingly, as Grandey and Melloy (2017) suggest, exploring new models of emotional labour and ER is vital for understanding the dynamic nature of emotions and promoting well-being.

The findings from the pilot study support the recommendation for dynamic and dyadic methods to test ER and emotional labour models by demonstrating the impact of DBT-ST on midwives' emotional regulation. While the study did not explicitly use dyadic methods, it indirectly highlights the potentiality of improving emotional regulation that may influence midwives' interactions with women and colleagues, aligning with the concept of actor-audience emotional cycles (Grandey and Sayre 2019). Additionally, the practice setting provides a real-world context, which could be expanded in future research to assess spillover effects between interactions, as recommended by Grandey and Melloy (2017) and Gross (2015).

10.6. Outcomes for Burnout

The Maslach Burnout Inventory (MBI) was administered at two time points: pre-intervention and post-intervention (Chapter 9, Section 9.6.3). The findings indicated a differential impact of the DBT-ST intervention on the components of burnout. Specifically, the intervention group showed a reduction in emotional exhaustion, suggesting the intervention may address this critical aspect of burnout (see Section 9.6.3.4, Table 9.7). However, the results for depersonalisation and personal accomplishment, as well as the overall MBI scores, did not demonstrate significant changes. This pattern highlights the intervention's targeted impact on emotional exhaustion but suggests limited influence on other dimensions of burnout.

Unlike the consistent findings observed with the ELS, the MBI results exhibited considerable variability, particularly in the control group. This variability and the non-significant changes in overall burnout levels might be attributed to individual or baseline group differences that could obscure the intervention's broader effects. Despite rigorous initial analyses to ensure comparability between groups, the variability in burnout measures emphasises the challenges in detecting subtle changes in a complex construct like burnout.

This pilot study's limitations, particularly its small sample and the inherent challenges in measuring complex outcomes like burnout, highlight the need for cautious interpretation of the findings. The differential impact observed across the MBI components suggests that, while the DBT-ST intervention shows promise in reducing emotional exhaustion, its effects on depersonalisation and personal accomplishment are less clear. Future research should investigate why the intervention did not significantly affect depersonalisation and personal accomplishment. This could involve exploring the adequacy of the intervention's components in addressing these specific dimensions of burnout. Adjustments to the intervention might include enhanced focus on interpersonal dynamics (interpersonal effectiveness skills) or more targeted strategies for boosting personal accomplishment (emotion regulation, mindfulness, and distress tolerance skills), which could be tested in controlled trials. Future studies are thus recommended to explore these aspects more thoroughly, possibly incorporating modifications in the intervention to address these specific areas of burnout.

10.6.1. Comparative Analysis

The pretest burnout scores for both groups indicated moderate to high levels of emotional exhaustion, with depersonalisation and personal accomplishment ranging from low to moderate (see Section 9.6.3.8, Table 9.9). Post-test results showed that the control group maintained high levels of emotional exhaustion, with moderate levels of depersonalisation and personal accomplishment. These patterns align with existing research on burnout among midwives, including findings from studies on student midwives (Yoshida and Sandall 2013; Sheen et al. 2015; Kane et al. 2021; Thumm et al. 2022; Li et al. 2023). Notably, while the UK midwives in Sandall's (1998) study exhibited higher burnout levels compared to Dutch peers and other health professionals, this pilot's participants showed even greater levels of emotional exhaustion. However, they did not exceed the levels found in Yoshida and Sandall's (2013) sample. Meanwhile, Sheen et al.'s (2015) study reported higher emotional exhaustion but lower depersonalisation and higher personal accomplishment compared to this sample. This suggests a worsening trend in burnout symptoms, particularly in emotional exhaustion and personal accomplishment, highlighting the urgent need for effective interventions in this area.

There is little doubt that the context in which this pilot study was conducted may have a bearing on these results. The COVID-19 pandemic and the likelihood that the participants experienced exceptional challenges must be considered. Kane et al.'s (2021) sample of midwives during the COVID-19 pandemic reported similar mean scores for emotional exhaustion and depersonalisation but lower scores for personal accomplishment than this sample. This

difference may also be reflective of the context of these newly appointed midwives who are hopeful in their new careers. It is important to consider these findings within the immediate context of burnout amongst the participants in the pilot. However, there is currently a lack of longitudinal evidence of the pandemic's impact on burnout levels or the development of burnout symptoms.

Although it can be surmised that burnout may have developed during students' training (Kuipers and Mestdagh 2023; Baudewyns et al. 2023), these inferences are only speculative given that there are limited studies on long-term burnout or burnout syndrome in midwifery (Suleiman-Martos et al. 2020). Burnout scores should be considered in the context of short and long-term development because these factors affect the lengths and timeliness of sanative interventions (Almén et al. 2020). This is important because high levels of burnout, particularly when longstanding, can lead individuals to resist adopting new strategies. Entrenched habits and coping mechanisms may hinder motivation for change (Almén 2021). These patterns can maintain burnout and allow it to persist over many years. Moreover, work-related stressors, interpersonal conflicts, or systemic issues within the organisation can also maintain burnout. Therefore, in this study, participants were required to juggle clinical practice alongside attending the online intervention. This demand may have limited their ability to absorb and engage with the content of the DBT-ST modules. It may also have negatively affected their burnout levels.

The MBI, primarily focusing on occupational stress, may not adequately capture personal burnout. It assesses specific domains (emotional exhaustion, depersonalisation, and reduced personal accomplishment) that predominantly reflect work-related emotional and interpersonal stressors (Maslach et al. 1996). While the DBT-ST intervention incorporated mindfulness, emotion regulation, interpersonal effectiveness, and distress tolerance to address these domains, it also required participants to apply these skills both personally and professionally. This dual application might not have been fully detected by the MBI, potentially leading to discrepancies in the final scores. Conversely, the Copenhagen Burnout Inventory (CBI) offers a more comprehensive assessment by including personal and client-related burnout factors alongside work-related stress (Kristensen et al. 2005). This broader approach might have provided additional insights into the specific areas of burnout affected by the intervention, particularly given the reduction in emotional exhaustion observed post-intervention. This suggests that personal, work-related, or client-related factors may have contributed to the observed changes. Given the MBI's limitations in capturing the full spectrum of burnout, future research could benefit from employing the CBI to more accurately assess the intervention's effectiveness across different burnout dimensions. This approach would allow for a more

detailed understanding of how the DBT-ST intervention influences burnout at various levels, potentially offering a clearer picture of its overall impact.

Burnout has long been recognised as a challenge in midwifery (Hunter et al. 2017). Maslach and Leiter (1997 cited in Maslach et al. 2001) defined burnout as “an erosion of engagement with the job”, arguing that burnout and engagement lie at opposite ends of a continuum (p.416). However, Leon et al.’s (2015) dialectical approach to both constructs suggests they can coexist and positively affect presenteeism. For instance, when highly motivated or committed individuals (e.g., midwives) work themselves into burnout despite being aware of its risks. The point here is that, without awareness of the process of both burnout and engagement, individuals and organisations are less able to implement appropriate remedial support. Burnout syndrome in midwifery is a multifaceted condition requiring process-oriented research to deeply understand and support the whole person, emphasising ER as a key factor in well-being, rather than relying on outcome-focused research.

10.7. Outcomes for Difficulties of Emotion Regulation Scale

The application of the Difficulties in Emotion Regulation Scale (DERS) in this PhD marks a pioneering step in exploring ER abilities within midwifery, an area of study previously lacking empirical evidence. The DERS analysis revealed noteworthy trends in ER abilities of participants. Although it indicated a broad spectrum of abilities, it also highlighted previously unknown difficulties. These findings merit further research to determine the scope of such difficulties within the wider professional population.

The DERS analysis post-DBT-ST intervention, detailed in Chapter 9, Section 9.6.4, Table 9.10, did not show statistically significant improvements in ER abilities for the intervention group compared to the control group ($p = .151$). However, the descriptive statistics (Section 9.6.4.4, Table 9.11) showed that, post-intervention, the DBT-ST group exhibited a reduction from 77.71 to 68.60, suggesting an improvement in their ability to regulate emotions. Although these changes did not reach statistical significance, they contrast with the minimal changes observed in the control group, from 72.75 to 71.57. While the difference should be interpreted cautiously, it may reflect a meaningful trend that supports the potential of the DBT-ST intervention. Importantly, this is the first known application of the DERS within a midwifery population, highlighting the value of further research in this area.

As this pilot study applied a universal application of DBT-ST to a healthy population, the normative mean score of the non-clinical health control group in the wider population was used to compare the scores of the participants. Comparatively, the normative data from healthcare populations in other studies (e.g., Stellern et al. 2021; Fox et al. 2007) have consistently shown lower scores than those observed in this pilot's sample. This discrepancy suggests that this sample may have experienced higher levels of emotional dysregulation, emphasising the need for targeted emotional regulation interventions in midwifery training.

10.8. Outcomes for DERS and its Subscales

The application of the DERS to assess the levels of difficulties of ER uncovered significant variability within the sample. While some midwives demonstrated adept emotional management, others showed substantial difficulties, suggesting a broad spectrum of ER abilities among midwives. Although empirically novel, this variability of emotional skills aligns with previous research emphasising challenges of ER within the profession, which has significant implications for clinical safety and midwife well-being (Hunter 2001; Hunter and Deery 2005; Hunter et al. 2008; Deery and Fisher 2010).

Evaluating the dimensions of ER abilities of participants, the DERS reveals significant insights. For the dimensions of emotional acceptance to emotional responses (Nonacceptance), participants showed a wide range of scores, from 6 to 27. Higher scores in this dimension indicate that some participants experience considerable difficulties regulating emotional responses by dismissing emotional experiences. This can be counterproductive in effectively managing primary and secondary emotions, such as anger, shame, and anxiety (Gratz and Roemer 2004). These emotional challenges are particularly pronounced in ECMs and can exacerbate stress, contributing significantly to burnout, as noted by Sheen et al. (2015) and Creedy et al. (2017).

Additionally, emotional Awareness and emotional Clarity dimensions highlight that participants with higher scores may struggle recognising and understanding their own emotions. These skills are crucial for effective decision making and communication in emotionally charged clinical environments, which highlights findings by Gratz and Roemer (2004) emphasising the importance of emotional clarity in professional settings.

Scores for the management or control of impulses (Impulsivity) and engaging in goal-directed behaviours (Goals) further suggest that some participants face challenges in controlling their

behaviours and their abilities to focus on tasks at times of emotional distress. Such difficulties could critically impact the quality of care provided, but also the management and quality of their relationships (Crowther et al. 2016; Cull et al. 2020; Tabib et al. 2024). Both dimensions highlight the potential for understanding the determinants of problematic behaviours in collegial relationships that, at times, lead to incivility (Curtis et al. 2006b; Bedwell et al. 2015). These dimensions may also offer a pathway for improving such relationships, including the wider culture that has been referenced as problematic (Carvajal et al. 2024; Donnelly et al. 2024). Moreover, these dimensions also point to an urgent need for interventions that enhance cognitive and emotional skills under stress, a concern supported by Hughes and Fraser (2011), Dahlen and Caplice (2014), and Nightingale et al. (2018).

Lastly, ER strategies (Strategies), despite not showing statistically significant changes, demonstrated a reduction in scores from pre- to post-test within the intervention group. This observed change suggests a potential improvement in participants' ability to access effective ER strategies. Although preliminary, this improvement indicates that the DBT-ST intervention could positively impact midwives' abilities to manage stressful situations. This finding warrants further investigation in larger studies to confirm the effectiveness of DBT-ST in enhancing ER among midwives.

The complexity of ER in midwifery is crucial, and this pilot highlights the potential benefits of incorporating targeted ER training into midwifery (Tabib et al. 2024). Enhanced training could help mitigate the emotional challenges identified, potentially improving both midwife well-being, care outcomes, and working relationships. This preliminary evidence, particularly the improvements in the Strategies subscale, supports further exploration of DBT-ST and similar interventions in a full-scale study to better understand ER needs of midwives.

The DERS subscales highlight the challenges in ER that varied across participants. The small sample in the pilot, although limited, raises further questions about ER abilities of the wider population in the profession. The role of the midwife requires a high degree of emotional competence (Plimmer et al. 2022). This includes ECMs' abilities to understand the mediating and moderating role of emotions. However, it is known that the culture in which midwives enter can make it sometimes difficult to develop adaptively (Catling et al. 2017; Catling and Rossiter 2019). Emotional contagion and enculturation of accepted attitudes can leave ECMs to unconsciously adopt mimicry of expressions, judgements, moods, and behaviours (Hatfield et al. 1994; Barsade 2002). While ECMs are taught teamwork skills to develop social and emotional competencies

(Hastie and Barclay 2021), the prevailing team dynamics and culture shaped by emotional contagion may constrain the development of more reflective and adaptive ER abilities.

These issues are crucial in midwifery, where precise emotional and behavioural responses can become critical for women in their care and the sustainability of midwifery well-being. DBT-ST could have contributed to midwives' increased awareness of their emotional states and improved their capacity to navigate challenging situations without experiencing heightened emotional reactivity. These findings, although not statistically significant, hold potential implications for midwifery well-being, suggesting that interventions that focus on enhancing ER skills, such as DBT-ST, could be effective in mitigating difficulties associated with emotional dysregulation. However, despite the methodological and implementation limitations of this pilot, the preliminary evidence is valuable for helping to consider if the levels of ER abilities in this wider population merit further exploration. This is particularly important given that there is an expectation that midwives are emotionally competent practitioners (Plimmer et al. 2022).

DBT-ST empirical evidence in the literature establishes its capacity to improve ER, which should align with the core principles that emphasise the development of adaptive coping mechanisms and emotional regulation skills (Gratz and Roemer 2004; Neacsiu et al. 2014; Linehan 2015a). DBT-ST offers more than fifty different ER strategies within its programme and improves understanding and awareness through mindfulness and distress tolerance skills of the DBT-ST curriculum (Linehan 2015a). However, the interrelatedness of these subscale findings with the results from the emotional intelligence tests (see Section 10.10) further indicates that the length of the intervention and the spread of modules in this pilot require further improvements. Together, these subscale results indicate that the current intervention may be insufficient in duration and specificity to adequately address the depth of ER abilities observed. Enhancing the emotional intelligence components of the programme could therefore be pivotal in cultivating the skills necessary for effective professional practice in midwifery.

10.9. Outcome of Resilience

The resilience assessment using the Connor-Davidson Resilience Inventory (CD-RISC) did not yield statistically significant results (Chapter 9, Section 9.6.5). However, the trend observed suggests noteworthy points for consideration. Although a repeated measures ANOVA indicated a non-significant change in resilience scores ($p = 0.211$), the descriptive statistics in Section 9.6.5.3, Table 9.13 suggested a marginal improvement in the intervention group's resilience

from the pretest to the post-test. In contrast, the control group exhibited a slight decrease in resilience over the same period.

This pattern, while not statistically significant, is supported by descriptive data showing a slight increase in resilience scores for the DBT-ST group, contrasting with a small decline in the control group. Although the confidence intervals indicate that these changes fall within the expected margin of variation, the direction of change may point to a positive trend that warrants further investigation. Such findings are particularly meaningful given the context of the pilot, where the small sample size inherently limited the power to detect statistically significant differences. It is plausible that, with a larger sample size in a full-scale study, these trends might achieve statistical significance and offer more robust conclusions.

Moreover, the resilience scores of the participants were notably lower than those reported in broader community samples. For example, Connor et al. (2003) reported a mean resilience score of 80.0 (SD = 12.8) in a general population sample, which contrasts sharply with the lower scores observed in this pilot study's midwives (67.75, SD = 8.04). This discrepancy raises concerns about the baseline resilience levels of individuals entering the midwifery profession. Compared to higher resilience scores reported by Sutherland et al. (2009) and Lekan et al. (2018) in different populations, the lower scores in this pilot suggest a pre-existing resilience deficit among midwifery participants. This implies that challenges in building resilience may start before entering the profession and continue to worsen during training.

The concept of resilience has been presented as a strong indicator to describe the challenges faced by midwives across all stages of their careers (Hunter and Warren 2014; Crowther et al. 2016). However, resilience was raised as a concept of projected strength and more of an aspiration than a construct under scrutiny.

Li et al. (2023) applied the 10-item Connor-Davidson Resilience Scale to nursing and midwifery students and found that participants demonstrated within-average resilience levels. In contrast, Williams (2016) explored the question "Is resilience the key?" in their pilot study and subsequently applied the True Resilience Scale (TRS) to 14 student midwives, reporting moderate to high resilience levels. A later study by Williams and Hadley (2022), which tracked 18 midwifery students over an 18-month period, found that resilience scores predominantly increased over time. However, these findings raise important questions about what resilience scores actually reflect. Rather than resilience levels serving as indicators of midwives' ability to cope with workplace adversity or their risk of attrition, Williams and Hadley (2022) suggest that

resilience may instead be shaped by individual coping strategies and psychological resources (Hunter and Warren 2013; Williams and Hadley 2022).

Findings from the DERS (see Section 10.8) indicate that some participants in this study experienced significant challenges with ER, suggesting that the difficulties midwives face may not be best explained by resilience but rather by their ability to regulate emotional responses to stress. While the prolonged exposure to stressors during the COVID-19 pandemic may have exacerbated these difficulties, the underlying issue is that resilience may not fully capture the emotional demands and regulatory challenges midwives encounter in practice. For those with limited adaptive coping strategies and greater difficulty managing emotional responses, this could contribute to a reinforcing cycle of heightened emotional dysregulation and distress. These findings highlight the need for interventions that go beyond resilience-building and instead focus on equipping midwives with skills to enhance ER, manage stress more effectively, and sustain their well-being in the profession. Some of these strategies were reflected in empirical evidence of resilience in medical staff that was correlated with self-directedness, persistence, and cooperativeness (Eley et al. 2013). Hunter and Warren (2013) argued midwife resilience required self-awareness, emotional insight, nurturing relationships, and adaptive coping strategies. Conversely, the lack of adaptive coping and low resilience increases the risk of burnout, which in turn impacts workforce capacity and patient care (Dyrbye et al. 2010; Di Monte et al. 2020).

As the midwifery literature has consistently referred to problematic working culture (Ball et al. 2003; Carvajal et al. 2024; Donnelly et al. 2024), group emotional contagion and its impact on work group dynamics can significantly influence cognitions and attitudes of impressionable or vulnerable individuals (Barsade 2002). Without nurturing and supporting relationships, ECMs risk taking on less adaptive coping skills. Therefore, despite ECMs' efforts to build resilience, limited expertise in recognising and managing emotional and physiological responses within relational interactions may reduce their capacity to cope with workplace adversity, increasing vulnerability to burnout. These matters are addressed within the DBT-ST curriculum and the modules of mindfulness, emotion regulation, interpersonal effectiveness, and distress tolerance, which aim to improve and develop strategies to positively cope with adversity.

This pilot study, despite its limitations, provides preliminary evidence that midwives may have unique resilience profiles, which necessitates further investigation. There is a clear need for targeted interventions aimed at enhancing resilience among midwives, which could significantly impact their ability to manage stress and maintain well-being in their demanding work

environments. Future research should explore these interventions in larger, more diverse midwife populations to substantiate the initial findings observed here. Additionally, investigating the individual differences in resilience among midwives could yield insights into tailored support strategies to the benefit of the profession, especially at times when it is under severe strain, such as during a global health pandemic.

10.10. Outcomes for Emotional Intelligence

In assessing the impact of the DBT-ST intervention using the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), no significant changes were observed in emotional intelligence scores across both groups post-intervention (Chapter 9, Section 9.6.6).

The decrease in post-test scores across all MSCEIT variables was unexpected (Section 9.6.6.2, Table 9.14). A search of the literature revealed only one similar finding. A pre-post-test study of a small sample of student nurses ($n = 19$) by Zoromski (2023) reported similar significant post-test decreases in several MSCEIT scores. Zoromski hypothesised that participant stress or fatigue may have contributed to the decline in performance. This explanation could plausibly apply to the conditions in this pilot study. Although few publications have addressed this phenomenon, the outcomes observed here prompt further exploration.

Zoromski's hypothesis is reasonable given that Mayer et al. (2002) advised that the MSCEIT should not be conducted under stressful conditions or fatigue, as these factors may render misleading outcomes. In this pilot, the context in which the study was conducted is particularly relevant. Although there were no immediate challenges to the completion of the pretest before the DBT-ST intervention for either the DBT-ST group or the control group, the post-test MSCEIT did not achieve a timely response. Despite the staggered starts, participants in both groups had, by this time, ended their induction phase and entered full clinical practice. However, both groups were supported by the preceptorship programme at this maternity service. The preceptorship programme gave the participants extra support (Feltham 2014). Nevertheless, the early stage of a midwife's career is widely acknowledged in the literature as a period characterised by elevated levels of occupational stress (Hughes and Fraser 2011; Black 2018). A recurrent theme is the weight of responsibility and pressure from the fear of "making mistakes" being more acute for NQMs and ECMs (see Chapter 3, Section 3.6.1.1). Therefore, consistent with Zoromski's hypothesis, it is plausible that participants across both groups experienced increased stress during the six weeks between measures due to their integration into substantive roles, which may have affected their emotional intelligence quotient (EIQ) at post-test.

Another distinctive feature of the participants in this pilot was that they entered practice during the height of the COVID-19 pandemic, a period associated with marked increases in stress, depression, and anxiety among healthcare workers (Rasmussen et al. 2022; Kuipers and Mestdagh 2023; Lloyd et al. 2023). These elevated levels of stress and anxiety may have intensified following the six-week supernumerary period, when participants became fully accountable for their clinical decisions and professional practice. This transition occurred in parallel with the wider systemic pressures on the NHS, including ongoing staff shortages in maternity services.

Additionally, this tension may have affected participants' motivation to give focused attention to this lengthy measure (Mayer et al., 2002). However, assumptions based on stress levels cannot be verified within the midwifery literature, as there is currently no empirical evidence directly linking stress and emotional intelligence (EI) in this population.

Nevertheless, the outcomes from the DERS, MBI, ELS, and CD-RISC indicate a complex interrelation between emotional and psychological functioning in response to environmental demands and stressors. These combined factors may influence the overall effectiveness of interventions aimed at improving emotional intelligence. Each measure captures a distinct facet of the emotional challenges midwives face. This suggests that while individual stress and EI are important predictors, the broader work environment and the cumulative effects of these factors must also be considered. These findings support the need for a holistic approach in future interventions. Such an approach should target EI alongside stress management, burnout prevention, and the development of resilience.

Capitalising on the information gained from this novel test, baseline scores rendered under more optimal conditions should reflect a more accurate test result. Based on the premise that midwives operate in an emotionally driven environment, their ability to navigate and sustain the quality of relationships leads to the assumption that managing emotions is a representation of a midwife's strength (Hunter 2001; Hunter et al. 2008). This assumption positions emotional competence as an expected aspect of professional practice. Deery and Fisher (2010) argued that "midwives' professional sense of well-being at work cannot be disaggregated from emotional literacy which we regard as an essential component for the development of an emotionally, intellectually and economically sustaining employment environment" (p.271). It follows that, for the sustainability of midwives' well-being, research focus in these domains should be reflected in its evidence base. Yet, little is known about the management of the emotional abilities of midwives. This pilot is the first to assess the levels of EI in the midwifery profession. Despite this

empirical gap, EI has been recognised as an integral aspect of midwifery standards, demonstrating awareness and compassionate self-care to manage the personal and emotional challenges in the workplace (NMC 2019).

Research by Matthews et al. (2017) and Lea et al. (2019) suggests that higher EI scores may serve as a buffer against stress, while lower EI scores could be associated with greater susceptibility to stress. To assess the relevance of this claim, participants' pretest scores were examined. Contrary to initial assumptions, most participants in both groups did not achieve high levels of EI across all branches of the MSCEIT. As a result, the findings indicate that this sample exhibited a greater vulnerability to stress, which was further reflected in the DERS results (see Section 10.8).

Although there is limited empirical evidence of the EI of midwives, Reemts' (2015) study on the EI competence in nurses showed that a majority of nurses scored in the range between 90 and 110, which Reemts interpreted as reflecting competence in EI. However, the guidelines in the Mayer et al. (2002) manual define competency as scores ranging from 110 to 119. In applying these guidelines, Reemts combined the *Lower Average* (90 to 99) and *Higher Average* (100 to 109) scores, categorising them collectively as *Competent*. This method of averaging and combining MSCEIT scores potentially diminishes the granularity in understanding the various levels of emotional intelligence. This approach differs from other studies that adhered to the MSCEIT's scoring ranges, such as those by Chan et al. (2014), Rieck and Callahan (2013), and Codier et al. (2013), who followed Mayer et al.'s (2002) scoring guidance.

Finally, in both Zoromski's study and this pilot study, the lower EI scores observed in participants may suggest that the "stress-buffer" effect, which higher EI is purported to provide, was not sufficiently active. EI is theorised to help individuals manage stress more effectively, acting as a protective factor in high-stress environments (Lea et al. 2019). In this case, the lower EI scores indicate that participants may have lacked the level of emotional competence required to buffer against the stress they experienced during the study period.

This diminished stress-buffer may have contributed to elevated stress levels, which in turn could have adversely affected participants' performance on the MSCEIT post-test. As the MSCEIT involves tasks requiring emotional reasoning and discernment, heightened stress during testing may have impaired cognitive-emotional functioning. Therefore, lower EI may have created a feedback loop in which participants were less equipped to manage stress and, as a result, were less able to perform optimally on emotionally demanding tasks.

This dynamic potentially introduces a confounding factor into both this pilot and Zoromski's (2023) study. Specifically, participants' inability to manage stress effectively, due to lower EI scores, may have obscured the true effects of the DBT-ST intervention. Rather than the intervention being directly responsible for post-test outcomes, elevated stress levels and insufficient ER capacity may have distorted the results. Consequently, it becomes difficult to isolate the actual effects of the intervention from the impact of stress on EI performance. This confounding issue suggests that future studies should carefully account for participants' baseline stress and EI levels to better understand how these variables interact with intervention outcomes.

This pilot, conducted without a full understanding of participants' EI abilities, was unable to tailor the DBT-ST modules to address specific deficits identified through the MSCEIT results. The generic application of the DBT-ST curriculum, while consistent with the psychoeducational approach, may have inadvertently limited the intervention's effectiveness in meeting the unique needs of participants with notably low EI scores. With hindsight, a more targeted approach might have better supported participants' development. However, as empirical data on EI within midwifery had not been previously examined, the design and implementation of the intervention were guided by general assumptions rather than tailored evidence. These findings highlight the importance of future research to establish a comprehensive baseline of EI abilities within midwifery populations, enabling the development of bespoke interventions that align with specific needs to enhance both individual and professional outcomes.

In the context of health intervention planning, Green and Kreuter (2005) emphasise the importance of establishing baseline measures as a prerequisite for designing responsive and effective programmes. Therefore, results of the MSCEIT highlight the critical need to establish baseline levels of EI across participants before designing and implementing interventions such as DBT-ST. Understanding baseline EI abilities can provide valuable insights into specific areas where participants may require targeted support.

This knowledge can inform the adaptation of DBT-ST modules to directly address identified deficits, thereby enhancing the relevance and efficacy of the intervention. By examining each branch of the MSCEIT, future iterations of the intervention can be tailored to better align with participants' needs, maximising their potential to develop adaptive emotional regulation strategies and improving both individual and professional outcomes. This approach emphasises the importance of empirically informed interventions that are responsive to the specific EI profiles of participants.

10.10.1. Emotional Intelligence Baseline Scores

Observations of the trends at baseline (pretest scores) in the pilot revealed that, while a few scored significantly above *Competent* levels, the majority in both groups struggled to meet this threshold in all areas of the MSCEIT and corresponding branches (see Table 9.15 and Table 9.16). These lower scores are a cause for concern for midwives' emotional competencies (Hunter 2004b; Deery and Fisher 2010; Plimmer et al. 2022). As reviewed, emotions are a fundamental aspect of the care to support perinatal women and their families. The management of emotions is a fundamental aspect of midwifery work (Hunter 2001). The quality of these caring relationships is central to the quality of midwifery care (Hunter et al. 2008). However, EI has not yet been assessed in the profession. Scholars have recommended that the profession should consider improving EI in midwives (Hunter 2004b; Hunter and Deery 2005; Deery and Fisher 2010; Patterson and Begley 2011; Tabib et al. 2024; Reis da Silva 2024). As argued by Goleman (1995), EI is a key social skill and fundamental for empathy, stress management, and communication. The baseline EI of participants in this pilot shows concerning trends in participants' abilities in this domain. It also indicates that the current intervention of six weeks had limited scope to address these deficits.

10.10.2. Experimental Emotional Intelligence Quotient (EIQ) Baseline Trends

The baselines of the experimental EIQ reflected less than *Competent* scores, with some participants falling into the *Improve* category (see Figure 9.3). This domain is crucial for interpreting and reacting to emotional cues in real time, such as recognising clients' or colleagues' non-verbal cues or adapting communication styles to suit others' emotional states (Mayer et al. 2002). Failing to predict accurately and respond to emotional information can incur miscommunications or misinterpretations of another person's actions, which can lead to holding negative emotions about others. The literature on horizontal violence in midwifery may find resonance in the context arising in these incidents, which are implicated in the failure to accurately read emotional cues between individuals (Franzen et al. 2021). Whether one or the other protagonist misinterprets emotional cues has not been the focus of research.

10.10.3. Strategic EIQ Baseline Trends

Strategic EIQ involves the ability to understand and manage emotions to promote emotional and intellectual growth. It focuses on the evaluation, management, and regulation of emotions in oneself and others (Mayer et al. 2002). Baseline scores in the strategic EIQ show less-than-Competent trends for most participants in the intervention group compared to the control group, with some participants falling within the consider-improvement threshold (70–89) (see

Figure 9.4). Accordingly, four out of seven participants of the intervention group may lack the knowledge to differentiate between the array of emotions, their different functions, and their actions. These difficulties are what emotional literacy is intended to resolve. The DBT-ST module on emotion regulation skills teaches the function of emotions. Understanding and naming emotions to regulate them successfully begins by learning to observe, describe, and name emotions to navigate emotional responses (Linehan 2015a). However, this module was only given a total of four hours, which is insufficient time to address the shortfalls in some participants.

10.10.4. Perceiving Emotions Branch 1

The Perceiving Emotions branch of the MSCEIT evaluates the ability to accurately recognise emotions in oneself and others, a foundational skill for effective midwifery practice. This ability is crucial for fostering empathic care, supporting meaningful client interactions, and navigating the complexities of emotionally charged situations.

The results revealed significant variability among participants, with a minority ($n = 4$) achieving proficiency, while the majority ($n = 10$) scored within the Lower-Average or Consider-Improvement thresholds (see Figure 9.5). This disparity indicates that, while some midwives are skilled at interpreting emotional cues, others face challenges in emotional awareness and accurately perceiving emotional signals. This may hinder the ability of those in the latter group to engage sensitively with clients, particularly during high-stress interactions.

These findings align with the DERS awareness and clarity subscales, which also identified difficulties in recognising and understanding emotions (Section 10.7). Such deficits in emotional perception may increase emotional tension in caregiving relationships (Hunter 2001; Hunter et al. 2008). While these challenges do not reflect clinical incompetence, they may lead to reliance on emotional labour strategies, such as surface or deep acting (noted in Emotional Labour Scales findings), which are associated with emotional exhaustion and burnout (Grandey 2003; Grandey and Sayre 2019). This is supported by the Maslach Burnout Inventory pretest results (see Section 10.6 and Table 9.9), which revealed moderately high levels of emotional exhaustion and moderate personal accomplishment.

To address these challenges, future iterations of DBT-ST could incorporate tailored interventions to strengthen emotional perception. For example, mindfulness and emotion recognition exercises could help participants better understand their own emotions and those of others, reducing emotional vulnerability and fostering resilience (Linehan 2015a). Enhancing these skills

would enable midwives to provide more empathic care and improve their capacity to navigate emotionally demanding situations.

10.10.5. Facilitating Thought Branch 2

The Facilitating Thought branch of the MSCEIT examines the ability to use emotions to enhance reasoning, decision making, and problem solving (Mayer et al. 2002). This skill is essential in midwifery, where clinical judgement often involves balancing emotional and practical considerations.

Baseline scores revealed significant challenges in this branch, particularly among participants in the intervention group. Several participants scored below the competency threshold, with some categorised as needing improvement (see Figure 9.6). These results suggest that participants may struggle to effectively integrate emotional information into clinical reasoning, potentially leading to a reliance on task-oriented approaches rather than emotionally driven care. Under stress, this deficit may result in midwives reverting to emotional labour strategies, such as surface acting, which can hinder effective problem solving and reduce the quality of client support (Deery 2005).

Addressing these deficits could be achieved by strengthening interpersonal effectiveness skills and fostering emotional awareness to improve participants' ability to use emotions constructively in clinical decision making. This would not only enhance reasoning and responsiveness but also promote more nuanced and supportive care, ultimately improving outcomes for clients. Future adaptations of the DBT-ST intervention should consider tailoring content to address specific deficits in emotional facilitation, ensuring participants are equipped to navigate the complex emotional demands of their professional roles.

10.10.6. Understanding Emotions Branch 3

The Understanding Emotions branch of the MSCEIT assesses the ability to comprehend complex emotional dynamics, including how emotions evolve and their potential outcomes. In this study, participants demonstrated a mix of competencies, with only a subset scoring within the *Competent* range or higher (Figure 9.7). Lower scores here suggest difficulties in accurately interpreting emotional states and understanding their progression, which may contribute to misinterpretations during interpersonal interactions. Such misunderstandings can fuel workplace conflicts and horizontal violence, often driven by unrecognised or misinterpreted emotions such as fear or anger (Kirkham 2007; Hood et al. 2010; Dahlen and Caplice 2014; Fenech 2016; Toohill et al. 2019; Minooee et al. 2021).

Midwives with lower competencies in understanding emotions may struggle to empathise effectively, potentially leading to feelings of alienation and emotional disengagement. This aligns with findings from the DERS nonacceptance subscale, where individuals who lack understanding of their emotions also exhibit difficulty accepting them (Gratz and Roemer 2004). Over time, these challenges may contribute to increased levels of stress, dissatisfaction, and attrition from the midwifery profession.

Midwifery is recognised as a complex and emotionally demanding profession, requiring midwives to form close relationships with women to support their emotional, physical, and psychological needs (Hunter 2001; Hunter et al. 2008). However, the culture and working environment in midwifery can either facilitate or impede empathy, depending on the organisational context (Bloxsome et al. 2019). EI, which underpins empathy, is positively associated with compassion, satisfaction, and resilience in caregiving roles (Beauvais et al. 2017).

While the DBT-ST framework is well-suited to address these deficits, the cadence of this pilot's curriculum, delivered over six weeks, was too short to adequately support the development of emotional understanding. Effective changes in this domain require sustained practice and reinforcement, suggesting that future iterations of DBT-ST would benefit from an extended duration or targeted sessions. Tailoring DBT-ST content to incorporate exercises specifically focused on emotional understanding could help midwives navigate emotionally complex situations, improve empathy, and enhance workplace relationships. This would not only support participants' professional performance but also foster personal resilience and job satisfaction in the long term.

10.10.7. Managing Emotions Branch 4

One key theme emerging from the literature review (Chapter 3) is that midwives have struggled with managing emotions in the face of workplace adversity, including organisational structures, culture, and the emotional costs of caring for both women and colleagues. Such adversity negatively impacts emotional well-being, leading to vulnerabilities that may result in emotional exhaustion and burnout, ultimately causing some to leave the profession (Sheen et al. 2015; Donnelly et al. 2024; Cates et al. 2024). Therefore, as midwifery scholars recommend, improving relationship management and emotional literacy is essential for enhancing the emotional well-being of midwives, especially early in their careers (Hunter and Deery 2005; Deery and Fisher 2010; Hunter et al. 2018). Consequently, the findings from this particular branch of the MSCEIT support the assumption that midwives could benefit from developing their ability to manage emotions in clinical practice and the workplace. The trends in this branch suggest that

participants across both groups may struggle to regulate their emotions during decision making, indicating difficulties in ER, self-management, and social management. For self-management, difficulties in ER may lead participants to misinterpret events, assign blame to others, feel victimised, and expect reparation (Mayer et al. 2003). In social management, these difficulties reflect challenges in empathy, thereby hindering the ability to solve problems related to others' emotions (Mayer et al. 2003; Burghart et al. 2024). Participants in the *Low Average* category may find it particularly challenging to manage their emotions during emotionally provocative work events.

Most participants in this pilot, newly qualified midwives (NQMs), scored in the *Low Average* range for this branch of the MSCEIT (see Figure 9.8). According to Mayer et al. (2002), this indicates deficiencies in self-management and social-management abilities, aligning with the outcomes from the DERS that revealed higher scores than normal controls (see Section 10.8 and Table 9.11), suggesting a general deficit in emotion regulation abilities. These challenges are likely to heighten these midwives' vulnerability to workplace adversity, particularly emotional distress and burnout, which are prevalent at this career stage (Cull et al. 2020).

Midwives must navigate a complex array of emotions when working with perinatal women, managing both the intensity of close relationships and the emotional demands of childbearing experiences (Morris and Feldman 1997; 2020). Emotions are a vital aspect of midwifery care, with midwives often engaging in empathic identification with women's experiences (Leinweber and Rowe 2010; Slade et al. 2015). A deficiency in emotional management skills not only impacts the ability to empathise but also raises concerns about meeting the professional expectation of providing compassionate care, which is recognised as a source of job satisfaction (Bradfield et al. 2019; Bloxsome et al. 2019).

While these midwives may resort to emotional labour strategies as a coping mechanism, the intense emotional experiences and potential for secondary trauma inherent in perinatal events can lead to cumulative vulnerabilities. Thus, developing emotion regulation and management skills is crucial, particularly for ECMs, to effectively handle the challenges of clinical practice and ensure their own well-being.

Moreover, a low ability in social management that leads to difficulties in identifying or empathising with others indicates being prone to judgement of self and others (Mayer et al. 2003). Emotional labour strategies, while applied in interactions with women, may receive less attention with colleagues, as the latter are not the primary focus of care (Hunter 2008). While the literature offers limited evidence of these differentiating behaviours, the reflections on the

culture within this context are prominent (Carvajal et al. 2024). The literature highlighted that the culture in which midwives work can be problematic, with some referring to a working culture of blame and risk aversion (Wallbank et al. 2010, 2013; Ockenden 2022), where incivility and bullying are significant (Burleigh et al. 2023). Such are the concerns about the midwifery workplace culture being perceived as non-compassionate, often attributed to inadequate socialisation and compassion, that Mayra et al. (2023) suggested this issue should be addressed in pre-registration education. These assumptions highlight the culture in which midwives work, which is, at times, less than ideally supportive and compassionate between midwives and their colleagues. This can result in some midwives managing their sociability and compassion with the women in their care rather than with colleagues, which leads to a so-called toxic culture (Burleigh et al. 2023).

DBT-ST is uniquely designed to address deficits in emotional management by teaching a range of skills that are applicable across both self- and social-management domains. Core mindfulness skills develop awareness and non-judgemental observation of emotions, while emotion regulation skills focus on understanding the functions of emotions, managing responses, and navigating complex emotional dynamics (Linehan 1993; 2015a). Interpersonal effectiveness modules emphasise validation and empathy, helping participants manage relationships effectively, while distress tolerance skills provide strategies for managing extreme emotions and long-term adversity. Together, these modules align closely with Mayer et al.'s (1997) conceptualisation of EI (see Chapter 5), offering a comprehensive framework for improving performance in the Managing Emotions branch of the MSCEIT.

Integrating EI training into midwifery education offers significant potential to enhance clinical decision making and interpersonal dynamics. By focusing on all branches of emotional intelligence, including managing emotions, training programmes can better equip midwives for the job. Practical exercises rooted in real-world applications could help midwives apply these skills effectively in both client care and workplace interactions. Future research should explore the impact of such training on care outcomes, workplace relationships, and midwife retention, with a specific focus on how improvements in the Managing Emotions branch influence overall professional well-being and sustainability.

10.11. Strengths of the Pilot

The DBT for Midwives pilot study was the first of its kind in midwifery to use a universal application of DBT Skills Training. This pilot is also one of a growing number of studies that apply

the manualised DBT Skills programme to non-clinical populations for the improvement of well-being. As such, the pilot sought to demonstrate a proof of concept in relation to the emotional challenges affecting the profession (Kendig 2016). This research was an attempt to address the gap in the ER needs of midwives. ER is critical for ECMs, as its absence increases risks to retention and sustainability (Hunter et al. 2019; Cull et al. 2020). Research highlights a gap in understanding emotions as a modifiable factor in addressing workplace adversity (Cramer and Hunter 2019). This study addresses this gap by exploring emotional literacy and its role in midwives' ability to manage emotions in professional relationships (Hunter 2001, 2005; Deery and Fisher 2010; Patterson and Begley 2011).

Implementing the DBT-ST intervention in a clinical setting faced challenges from ongoing staff shortages, the COVID-19 pandemic, and competing priorities for study participants (preceptorship and induction programmes). Despite the obstacles, this study generated new insights into ECMs' emotional intelligence and regulation that, prior to this study, have never been collected. While emotional labour and resilience have both been qualitatively explored (Hunter and Warren 2014), quantitative evidence for midwives remains scarce. This study, although small, includes previously uncollected data that brings valuable knowledge for future research.

While these strengths highlighted the pilot's potential for addressing the strategic emotional challenges in midwifery, some multifactorial drivers limited the outcomes of the pilot. These factors compel a solution-oriented review of the limitations to develop meaningful and proactive strategies to address the developing knowledge for the effective application of DBT-ST in this professional population.

10.12. Limitations of the Pilot

This section examines limitations encountered during the pilot study. Recognising these limitations is crucial, not only for interpreting the findings within the appropriate context but also for informing future research directions. While the study design aimed to address the research questions as robustly as possible, certain constraints inherent in the research context, settings, methodology, and implementation influenced the outcomes. These limitations pertain to the context, sample size, the staggered nature of group participation, instances of participant disengagement, and deviations from the initial protocol. Additionally, the transition to an online format, the potential biases introduced by the researcher's role, the effectiveness of the data

collection tools, and a critical reflection on these elements are discussed to pave the way for a balanced understanding of the study's results and implications.

10.12.1. The context: COVID-19 Pandemic

The study was conducted during the COVID-19 pandemic within an already pressurised maternity service with longstanding staff shortages. During this period, midwives faced increased workloads and emotional stress due to heightened demands in healthcare settings, with 97% of student midwives considering that the pandemic negatively affected their mental health (RCM 2020). The significance for the context in which this study was conducted reflects the distinctiveness of conducting research during a global pandemic. The stress and exhaustion that likely affected the participants and researcher in the study cannot be understated and may be reflected in the outcomes and operationalisation of procedures.

Most of the study participants were NQMs who had endured the effects of the pandemic as student midwives. The pandemic shifted the immediate needs and priorities, with also a decrease in available time and mental bandwidth to engage in professional development activities (Kuipers and Mestdagh 2023). COVID-19 studies have highlighted that the pandemic affected emotional well-being, sleep, concentration, and decreased motivation in student midwives (Rasmussen et al. 2022). These intrapersonal conflicts may have inadvertently affected the perceived relevance and utility of the intervention during the crisis, as participants may have prioritised their own coping strategies with day-to-day challenges over longer-term educational goals.

Motivation is understood to increase through behavioural and cognitive engagement with goals (Hamm et al., 2019). However, when multiple risk factors are present, such as those associated with the COVID-19 pandemic or with workplace adversity, motivation and engagement may decline. Hamm et al. (2016) argued that the combination of co-occurring risk factors with low optimism or a lack of perceived control can significantly undermine motivation in goal-directed contexts.

This is particularly relevant to midwifery, where empirical studies have shown that midwives often report limited control over their working environment. Predictability is frequently unattainable, and risk is widely regarded as an inherent aspect of their role (Bedwell et al. 2015; Cramer and Hunter, 2019; Cull et al. 2020). Parallels can be drawn with research on university students during the pandemic, which demonstrated that high levels of stress and uncertainty negatively affected motivation and goal engagement (Hollister et al. 2022; Hendrick et al. 2023;

Martin 2023). Similar effects appeared in this pilot study, where prolonged stress may have hindered participants' motivation and ability to engage fully with the DBT-ST intervention.

In education and psychotherapeutic interventions, including DBT-ST interventions, the pandemic necessitated sudden shifts to remote working environments and altered the traditional modes of interaction and training within healthcare settings. For the pilot study, this meant adapting to virtual platforms for delivering the DBT-ST intervention, which was originally designed for in-person engagement. The switch to an online format may have impacted the fidelity of the intervention and the participants' engagement levels, as the personal connection and immediate feedback inherent in face-to-face interactions were diminished. Moreover, the uncertainty of ever-changing risks and scheduling resulted in the researcher becoming the sole facilitator of the DBT-ST intervention instead of the planned co-facilitator with a DBT expert.

The constraints imposed by the pandemic, including the need for social distancing, may have also impacted the data collection processes. The reliance on online tools and self-reported measures might have influenced the reliability and depth of the data gathered, introducing potential biases in the evaluation of the intervention's outcomes.

The constantly changing landscape of the pandemic caused uncertainties and delays for the pilot. Initially, the intervention was planned to be co-facilitated by a DBT expert and the researcher as the co-facilitator. However, due to uncertainties around the dates for the intervention caused by the pandemic, the expert was no longer available. Consequently, the researcher was required to facilitate the intervention alone. This shift may have influenced the delivery and reception of the intervention, potentially affecting its effectiveness and the level of support provided to participants.

Despite these challenges, the pandemic provided a real-world context in which the resilience and adaptability skills promoted by DBT-ST could be immediately applicable. This situation presented an opportunity to evaluate the utility of the intervention under stress, offering insights into how such training can be tailored to better support midwives in challenging clinical settings. Understanding the full impact of COVID-19 on this pilot study is critical for interpreting its outcomes and for planning future interventions. The pandemic's disruption has highlighted the need for flexible, responsive approaches to training and support for midwives to ensure that they are equipped to manage both their professional responsibilities and personal well-being in times of crisis.

10.12.2. Sample Size

The sample size in this study was small. Though the pilot did not attempt generalisation, a limited sample size reduces the ability to detect subtle but meaningful differences between groups. As a result, both significant and non-significant findings in this study should be interpreted with caution, as they may reflect a lack of statistical power rather than a true absence of effect (Coolican 2009).

The small sample size is attributable to several practical constraints due to the exceptional context in which this study was conducted. This reflects the operational demands of maternity services caused by the ongoing disruptions of the COVID-19 pandemic and its effect on staffing levels (Brigante et al. 2022). These factors made recruitment and retention challenging for both the researcher and the maternity service, contributing to a smaller sample size than originally conceived (40 initially projected).

Despite the limitations associated with the small sample size, this study provides valuable preliminary evidence on the feasibility and potential effectiveness of DBT-ST in supporting emotional well-being among midwives. In this context, this research does not proclaim that the evidence gathered has clinical implications; rather, it compels questions that have not yet received research attention. Given that this is one of the first studies to apply DBT-ST in this profession, the findings contribute important insights for future improvements to the configuration of the DBT-ST intervention. It also informs on the feasibility of conducting such an intervention in the practice setting, particularly in the complex environmental context in which it was conducted.

The challenges in estimating an appropriate sample size for the pilot were further compounded by the unique characteristics of the midwifery population and the novel application of DBT-ST in this non-clinical population. Unlike the wider non-clinical population, midwives are presumed to have inherently developed emotional expertise due to the nature of their work (Plimmer et al. 2022). The assumption was that midwives might exhibit more advanced emotional intelligence and regulation skills compared to broader non-clinical groups, which would be compatible with the nature and content of the intervention. Therefore, the sample size was chosen based on Beanlands et al.'s (2019) study with senior nursing students, though the calculation of sample size was not completed. However, the sample size for the mindfulness outcomes would have suggested a minimum of 15 participants per group (Beanlands et al. 2019).

The absence of quantitative data on emotional intelligence and emotion regulation within this specific population poses a significant limitation. This gap is critical, as it impedes the ability to perform a precise power analysis that would normally guide the determination of an adequate sample size. Acknowledging the limitations of this pilot and its findings, calculations of sample size without robust evidence on emotion regulation factors in this population may prove challenging for accurately estimating future studies in this domain.

For instance, a calculated Cohen's d value for the intervention on total DERS scores is approximately -0.51, with a standard deviation of the differences at approximately 17.80. This indicates a medium negative effect size, suggesting that the intervention was effective in reducing difficulties in emotion regulation among the intervention group, as lower scores on the DERS indicate better emotion regulation. Setting the level of significance at 0.05 and the power at 90% (0.90), with a two-group design (intervention and control), the required sample size would need to be approximately 82 participants per group (not including dropouts). Conversely, if the sample size had been calculated based on the burnout results (Yoshida and Sandall 2013), the sample size would have been 36 participants per group. The decision to apply an albeit less robust outcome from this pilot, or a robust outcome from a measure that is not specifically based on emotion regulation, may create an unnecessary risk of a Type II error (failing to detect a true effect when one exists). It could also fail to provide definitive answers if a measure such as the DERS is applied in the study.

The application of DBT-ST, which has shown efficacy in various clinical and non-clinical settings, is unexplored within the midwifery profession (Chapter 4, Section 4.5). This lack of precedent limits the availability of comparative data and effect sizes that could otherwise inform a more informed sample size calculation. Given these unique aspects, the pilot study was necessarily exploratory, focusing on establishing initial quantitative baselines for EI and ER within the midwifery population. This foundational data is vital not only for filling existing research gaps but also for tailoring the interventions to the specific emotional and psychological dynamics of midwives. The pilot thereby serves a critical dual purpose: it tests the logistical and methodological feasibility of the interventions and begins to chart baseline emotional characteristics of a population where such data was previously non-existent.

The limitations in sample size estimation acknowledged in this study stem from both the lack of specific prior data and the pioneering application of DBT-ST in a unique non-clinical group. These factors necessitate an initial pilot phase, which, while constrained by sample size, is crucial for laying the groundwork for subsequent, more robust research. This phase is instrumental in

developing the necessary empirical foundation to inform future studies, which will be better positioned to undertake comprehensive evaluations with statistically powered sample sizes.

10.12.3. Group Differences

In quasi-experimental designs, unlike true experiments, participants are not randomly assigned to groups. Therefore, establishing sufficient comparability between the Intervention and control groups is essential for ensuring that any observed differences in outcomes are due to the intervention itself, rather than pre-existing differences between the groups (Coolican 2009). In this study, the intervention group received DBT-ST, while the control group participated in standard Trust and maternity service induction and practice without the intervention. The sufficient comparability of these groups was assessed through statistical analyses and consideration of external factors.

10.12.3.1. Statistical comparability

For the ANCOVAs (ELS, DERS, MBI, and MSCEIT), the p-values for the homogeneity of regression slopes are well above the standard significance threshold of 0.05 ($p = 0.881$, $p = 0.592$, $p = 0.470$, and $p = 0.227$), indicating no significant difference between the regression slopes for the two groups. This means that the pre-test (baseline) scores and the dependent variable (post-test scores) had similar relationships in both the Intervention and control groups. Similarly, for the CD-RISC, the ANOVA result showed the F-statistic for the group effect was 1.786, with a p-value of 0.211 and a partial eta squared of 0.152. This result indicated that there were no statistically significant differences in resilience scores between the groups, further indicating that the groups were comparable in this regard.

10.12.3.2. Staggered groups

As reviewed in Chapter 8, Section 8.4.2, both groups underwent the same induction processes (Trust and Maternity Service inductions, supernumerary phases lasting six weeks) and were subject to the same external conditions, including the third wave of COVID-19. The shift from supernumerary to substantive roles marks a significant change in responsibilities in both groups, potentially leading to increased stress or emotion work anxieties. As this transition occurred for both groups, it represents a comparable external influence. Since both groups faced the same external pressures (transitioning to substantive roles), it can be argued that any differences or similarities in post-test outcomes were likely influenced more by the intervention than by external factors. Otherwise, the intervention group would have also experienced an increase in their emotional labour, which was contrary to the results compared to the control group, who saw their score increase. Furthermore, as the control group was closer to the lifting of COVID-

19 restrictions (March 2022), they could have been expected to improve their burnout levels, but again, the outcomes do not support this argument.

10.12.3.3. Staggered start and timing

Beyond statistical comparability, both groups followed similar trajectories through the maternity service, including completing the same Trust and Maternity Service induction processes and experiencing a six-week supernumerary phase (Figure 8.4). Although the groups began the study six weeks apart, both were subject to similar external conditions, such as the third wave of COVID-19 and the transition to substantive roles, which likely impacted their responses to post-test measures. Importantly, the timing of repeated measures was aligned for both groups, ensuring that comparisons were made at equivalent points within their respective induction processes. The similarity of these external conditions, coupled with the statistical controls applied, further reinforces the sufficient comparability of the groups, a key requirement for quasi-experimental validity (Coolican 2009).

Although the two groups began the study six weeks apart, both groups were administered the pre-test and post-test at synchronous time points within their respective supernumerary phase (Figure 8.4 in Chapter 8). This ensured that measures were completed at comparable stages of their transition. Moreover, both groups were subject to the external challenges of the third wave of COVID-19, adding further consistency to the external context within which the study was conducted. The control group was closer to the lifting of COVID-19 restrictions than the intervention group, which could have reflected improvements in their post-test outcomes; however, their ELS scores revealed the contrary. Nevertheless, the statistical analyses, including ANCOVA, accounted for these factors, and no significant baseline differences were detected, affirming the comparability of the groups despite the staggered start.

10.12.3.4. Summary of group differences

In summary, although the study utilised a quasi-experimental design without random assignment, the Intervention and control groups were sufficiently comparable, both at baseline and in terms of shared external factors such as the transition from supernumerary to substantive roles and the external impacts of the COVID-19 pandemic. The statistical analyses (ANCOVA and ANOVA) confirmed that any small differences at baseline were not significant, and the analysis adjusted for these differences appropriately. Therefore, the findings from this study are valid within the quasi-experimental framework, with group comparability sufficiently established to attribute any observed differences in post-test outcomes to the DBT-ST intervention. Despite the staggered start, repeated measures were taken at comparable points, ensuring the integrity

of the study design. These findings collectively address concerns about the comparability of the groups, supporting the validity of the post-test outcomes and the overall conclusions of this study.

10.12.3.5. Participant Disengagement

Participant disengagement can be considered in relation to four major interrelated factors.

- The intervention
- Participants' competing priorities
- The study design and its chosen measures
- The researcher's/participants' interpersonal relations

10.12.3.6. The intervention

Participant engagement during the intervention, particularly in the first four weeks, included core mindfulness, emotion regulation, and interpersonal effectiveness modules. These included discussions and sharing of experiences that exemplified positive engagement. Furthermore, the intervention was well attended throughout its duration. Only one participant exited the study due to clinical practice priorities.

However, the distress tolerance and the summary sessions had notably less interaction. The distress tolerance session included complex techniques that would have required experiential hands-on exercises and roleplay with tools and props to give these skills optimal skill acquisition. Numerous techniques required lengthy explanations to compensate for the lack of these supportive tools, resulting in a less interactive learning experience. Future iterations of this session should be conducted in real-time, in-person sessions with appropriate tools to support experiential learning of these skills.

Furthermore, most participants chose to turn off their cameras. Online presentations with off-camera participation are not only challenging to the presenter but also indicative of a lack of engagement and camera fatigue (Shockley et al. 2021). COVID-19 saw the rise of virtual technology applications in every aspect of educational and professional lives. O'Doherty et al. (2018) highlighted the barriers to online learning that can negatively affect emotions and motivation.

As participants were also engaged in their induction process within the maternity service, they also had significant virtual learning environment (VLE) tasks to complete in addition to the pilot's intervention, which may have contributed to their camera fatigue. Conversely, a recordable online delivery mode increases the flexibility of attendance and aids catch-up sessions for

increased participation. Although not used in this pilot, future studies should consider a combination of delivery methods. Nevertheless, a single method of delivery by virtual means constrains not only the mode but also the content.

Additionally, the summary session was also less interactive, and there was no further learning for participants to engage with. In hindsight, this session was superfluous and should have been replaced by a more interactive approach to revisiting skills. The outcomes of the pilot support additional sessions for emotion regulation and interpersonal effectiveness skills. Future iterations should consider better configurations of the DBT-ST modules to address the specific deficits of this population.

Therefore, although participants' engagement was supported during the intervention, the notable reduction in engagement during the last two weeks of the intervention may have been caused by the online mode and compounded by the limitations of interactivity of content. Nevertheless, the six remaining participants attended all sessions in a timely manner.

Furthermore, during sessions, quality discussions amongst participants and the researcher were supported by camaraderie in shared experiences, which Beanlands et al. (2019; 2021) recommended to create a supportive and trusting atmosphere during the intervention.

10.12.3.7. Participants' competing priorities

A significant consideration is that participants had other competing priorities during the intervention. The maternity service induction process involved numerous preparatory tasks to complete before entering the clinical area. It would be understandable if, at such a challenging stage of their chosen career, filled with anticipation or trepidation, participants decided to prioritise their employment status rather than fully engaging with DBT-ST acquisition. Another limitation was the lack of adherence to DBT Skills homework. The homework represents participants' ability to test their newly acquired DBT skill sets in their daily lives between sessions. In the pilot, the researcher soon noticed that, with participants' competing priorities, the DBT Skills homework was not prioritised. This not only hindered participants' learning but also limited their capacity to make informed judgements about the applicability of the skills, which was part of the study's intended outcomes.

Motivation is a major determinant of skill acquisition. As Eccles and Wigfield (2002) contended, learning motivation is based on the expectancy (belief in one's ability to complete a task) and value (meaningful or interesting) of learning content. If participants' competing priorities limited their availability and therefore abilities for skill acquisition, then their motivation may have

suffered, despite the initial interest in the intervention. This is reflected in the literature on healthcare participation and disengagement in clinically-based interventions (Edwardson et al. 2018; Dawson et al. 2021; Teoh et al. 2023).

10.12.3.8. *Post-intervention*

After the intervention ended, participants were slow to complete the repeated measures. This period followed their transition into substantive roles in clinical practice. The combination of heightened workloads, ongoing staff shortages, and the challenges associated with this critical period of adjustment reflects what Fenwick et al. (2012) describe as a reality shock. During this time, newly qualified midwives are required to navigate issues of agency and control as they attempt to establish their roles within existing teams (Clement et al., 2013; Kitson-Reynolds et al., 2014; Hopkinson et al., 2022).

Disengagement increased after the three-month follow-up and the final cycle of the planned first phase. At this point, the disengagement of two participants in the intervention group, in particular, became apparent, although none of the participants requested to withdraw from the study. This coincided with the researcher's sudden critical health problems and competing PhD timeline priorities, which ultimately led to the premature ending of the study.

10.12.3.9. *Design and measures*

Although the mixed methods design of this study has been recognised as a factor in participant burden (Creswell et al. 2011; Page and Persch 2013; Stadnick et al. 2022), the repeated measures chosen likely increased this factor (Ampt 2003; Woolf and Edwards 2021). Loscalzo (2009) recommended addressing these challenges by considering operational acceptability, which refers to the extent to which the study design, procedures, and measures are manageable and acceptable for participants in real-world settings. The learning in this pilot has highlighted the significant effects and value of the measures applied. This was particularly the case for the MSCEIT measure, which was complex and lengthy and planned to be repeated three times across the study. Future studies will need to carefully consider the implications for participant burden and the value and timing of this repeated measure.

10.12.3.10. *Researcher as sole facilitator*

See Critical Reflection Section 10.12.5 and Chapter 8, Sections 8.5.4, 8.9.5, 8.9.6, 8.9.7, 8.9.8, and 8.10.3

10.12.4. Changes to the Original Protocol

As outlined in Chapter 8, the DBT-ST intervention underwent several deviations from its original protocol due to disruptions caused by the COVID-19 pandemic. The intervention was transitioned to an online format (Section 8.5.3), and, in the absence of a DBT expert, the researcher assumed the role of facilitator (Section 8.5.4). Additionally, stakeholders (co-funders of the PhD) reduced the intervention length to six weeks to align with their induction programme.

Although these changes presented challenges, the literature supports the effectiveness of DBT-ST when delivered online, even in shortened durations (see Chapter 4, Section 4.5). This suggests that the delivery method alone was unlikely to have been the primary limitation. However, the combination of the shortened length and the programme's design may have introduced constraints that were particularly significant in this non-clinical context.

While shorter DBT-ST interventions are effective in transdiagnostic approaches targeting symptom reduction, this psychoeducational iteration of the programme may have faced limitations for several reasons. Designed to equip midwives with DBT skills applicable to their practice setting, the intervention sought to enhance ER abilities without targeting transdiagnostic symptomology. However, little was known about participants' baseline ER abilities before the pilot. The programme content was delivered in a generalised format under the assumption that midwives possess a degree of emotional expertise derived from experiential practice. This focus on skill utility, rather than specific baseline deficits, may have limited the programme's impact, as it did not specifically address participants' foundational emotional competencies.

In research conducted in other non-clinical populations, when deficits are unknown or likely (e.g., schools), DBT-ST programmes are typically delivered over several months, allowing time for skill acquisition through iterative practice and reinforcement (see Section 4.5.11). In contrast, the six-week design of this pilot, though preserving the core DBT-ST curriculum, condensed the learning process, potentially compromising participants' ability to absorb and integrate the complex skills being taught. Performance psychologists emphasise that skill acquisition, particularly for novel cognitive and emotional skills, requires sustained engagement over three to six months (Weinberg and Williams 2010; Clark and Williamon 2011). This timeframe far exceeds the duration of this pilot and highlights the limitations of the intervention design for achieving meaningful outcomes.

The outcomes of the DERS and MSCEIT assessments revealed notable deficits in participants' ER and EI. These deficits may have contributed to participants' uncertainty and apprehension about the programme content, potentially activating defence mechanisms and reducing their motivation to engage with the training. In the intervention group, participants' average URICA score of 8.5 indicated suboptimal readiness for self-improvement. Unlike clinical populations, participants in this professional setting may have approached the intervention with differing expectations, potentially leading to reduced engagement. The combination of low motivation and feeling overwhelmed by the content likely diminished the intervention's impact. This highlights the importance of considering participants' motivation, emotional readiness, and baseline abilities when implementing DBT-ST in non-clinical settings.

Moreover, applying DBT-ST in the practice setting may have inadvertently placed participants under considerable pressure to absorb foundational concepts while managing competing professional priorities. NQMs in this study were navigating the demands of their induction alongside the additional challenges of the COVID-19 pandemic. These external pressures likely constrained their capacity to fully engage with the material and integrate it into their daily practice. The short duration of the sessions compounded this issue, providing limited time for participants to process and apply the skills.

The complexity of the DBT skills taught during the intervention, ranging from emotion regulation to interpersonal effectiveness, requires time and repetition for effective acquisition (Linehan 2015). Participants' professional demands and limited mental bandwidth likely hindered their ability to apply the skills to the extent necessary to see measurable improvements. Future iterations of DBT-ST should consider extending the duration of the intervention or implementing more flexible delivery formats to accommodate the demands of professional settings.

10.12.5. Researcher's Role, Influences, and Bias: Critical Reflection

This section critically reflects on my dual role as both the researcher and facilitator of the DBT-ST intervention. As noted by Hiller and Vears (2016), clinician-researchers often encounter challenges in balancing participant expectations with research rigour, particularly when occupying dual roles. In this study, navigating the responsibilities of delivering the intervention and evaluating its outcomes introduced complexities that shaped participant engagement, data collection, and the study's dynamics. Supported by my field notes, this reflection examines how my positionality, professional background, and pragmatic decisions influenced the intervention's implementation and findings. These insights aim to address biases and limitations while offering valuable lessons for future research.

Role and Positionality

As a former specialist perinatal mental health midwife, my professional identity and insider knowledge of the research site uniquely positioned me to facilitate the DBT-ST intervention. While my expertise allowed me to contextualise the skills training within midwifery practice, it also blurred the boundaries between clinician and researcher. Colbourne and Sque (2004) argued that such dual roles often introduce complexities related to objectivity and power dynamics, particularly when participants are colleagues or part of the same professional field.

Having transitioned to a PhD student role, I was no longer an active member of the midwifery team, yet participants likely perceived me as an insider due to our shared professional background (Hiller and Vears 2016). This dynamic may have shaped their engagement with the intervention, as participants navigated the tension between my role as facilitator and their status as NQMs. As Asselin (2003) suggests, insider researchers must carefully navigate existing relationships to maintain both rapport and research integrity.

The decision to assume the facilitator role, necessitated by the pandemic and logistical constraints, added another layer of complexity. Although my mental health and DBT-ST training prepared me for this role, the absence of a DBT expert likely influenced the intervention's depth. The pragmatic decision to combine facilitation and research roles highlights the challenges clinician-researchers face when balancing professional and logistical demands (Hiller and Vears 2016). Reflexivity, as emphasised by Guillemin and Gillam (2004), allows me to develop a critical awareness of the ethical and methodological implications of my positionality.

Reflections on Delivery and Engagement

Facilitating the DBT-ST sessions required navigating group dynamics and addressing power imbalances inherent in the researcher-participant relationship (Finlay 2002). While I made efforts to foster a collaborative and open environment, participants may have perceived me as an authority figure, potentially shaping how they engaged with me and the content (Leigh 2013). This dynamic was particularly relevant for NQMs, who were still establishing their professional identities within the maternity service (Hunter and Segrott 2014).

Despite these challenges, the interactive sessions were characterised by rich discussions and meaningful interactions. Skills such as mindfulness and validation were positively acknowledged, with some participants integrating these practices into their daily lives. However, less interactive sessions, such as the distress tolerance session, received less engagement. The online format limited opportunities for role-playing and real-time feedback, which are critical components of

DBT-ST (Hartmann et al. 2021). Additionally, this session was heavily content-driven, potentially overwhelming participants and reducing their engagement.

Group dynamics shifted towards the end of the intervention, particularly during the final data collection phase. Participants appeared reluctant to complete repeated measures, reflecting the combined burden of professional stress, cognitive load, and study requirements (Patel and Alsmail 2024). Prochaska and DiClemente's (1983) readiness for change model provides a useful framework for understanding this disengagement, as the URICA scores indicated suboptimal motivation for self-improvement. These dynamics highlight the importance of aligning interventions with participants' readiness and contextual factors but also highlight other structural inefficiencies (Section 10.4).

Impact of Facilitation and Bias

My professional background and belief in the value of DBT-ST influenced both the delivery and evaluation of the intervention. While my expertise allowed me to contextualise the curriculum within midwifery practice, it also introduced potential biases. Frank (1997) argued that researchers must critically examine how their assumptions shape the research process. My commitment to the intervention's success may have heightened my expectations for positive outcomes, subtly influencing how I interpreted participants' engagement and responses (Berger 2015).

Additionally, the intervention's condensed timeframe posed challenges for skill acquisition. Performance psychologists emphasise that developing complex psychosocial skills, no matter how competently it is delivered (Weinberg and Williams 2010), requires sustained practice over several months (Clark and Williamon 2011). The six-week format, though pragmatically necessary, limited participants' ability to fully absorb and integrate the DBT skills. This constraint was particularly evident in the intervention's impact on emotional regulation, as measured by the MSCEIT and DERS outcomes.

Participant Burden and Study Design

Considering the outcomes of the MSCEIT and DERS, the study design inadvertently placed significant cognitive and emotional demands on participants. The condensed intervention, combined with repeated measures and the online format, likely exacerbated participant fatigue. For NQMs already navigating professional transitions, the additional demands of the study likely felt overwhelming, particularly during the pandemic (Patel and Alsmail 2024).

While the online format offered logistical flexibility, it also reduced opportunities for informal interactions and dynamic group engagement, which are essential for building cohesion and deepening learning (Hartmann et al. 2021). Additionally, the repeated measures, though necessary for evaluating the intervention, may have been perceived as excessive, particularly during the final data collection phase. Participants' reluctance to complete these measures suggests that the study design did not fully account for their professional stress and time constraints.

Personal Reflexivity

Guillemin and Gillam (2004) remind us that reflexivity is essential for researchers to understand how their personal and professional backgrounds shape the research process. At the start of this PhD project, I had a clear vision of how I wanted it to unfold. I aimed to emulate the study by Beanlands et al. (2019), which closely aligned with my research goals. However, as Hiller and Vears (2016) pointed out, the external environment can drastically alter a study's course, particularly when working with stakeholders whose objectives may not always align with the researcher's. The final iteration of my study was, therefore, a combination of logistical decisions shaped by the shifting circumstances at the maternity service. These unexpected changes forced me to adapt the study's design in ways I had not initially anticipated.

Finlay (2002) highlighted that a researcher's professional background and personal beliefs can influence their interpretation of participant progress. In my case, my professional experience and psychological training significantly influenced how I approached both the intervention and the participants. I entered this study with a deep belief in the value of midwives' well-being and the potential of interventions like DBT-ST for improving emotional regulation and resilience. However, I now recognise that these beliefs may have influenced the way I facilitated the sessions and how I interpreted participants' progress. My strong commitment to the intervention may have led to an unconscious bias, wherein I perceived participants as more engaged or benefiting more from the training than they actually were (Colbourne and Sque 2004).

Emotional investment can shape how researchers facilitate interventions, particularly when they are personally attached to the research outcome (Guillemin and Gillam 2004). Balancing my role as an early career researcher and a DBT-ST facilitator in such complex circumstances caused me to enter a state of survival mode. The pressure of ensuring that the intervention was delivered effectively, combined with my anxiety about doing something wrong, may have shifted my focus towards the mechanics of the delivery rather than engaging with the finer,

more meaningful aspects of the DBT skills. In hindsight, I was more preoccupied with aligning my performance with my expectations for positive outcomes than fully engaging with participants, something that may have been mitigated by having a co-facilitator.

Asselin (2003) suggested that researchers often carry assumptions about participants based on their own professional identities. In my case, I entered the study with inherent assumptions about the emotional and psychological needs of newly qualified midwives. While my experience allowed me to empathise with participants and understand their professional pressures, it also meant that I approached the intervention with preconceived ideas about what they needed. This aligns with Hiller and Vears (2016), who argued that insider researchers may unintentionally impose their expectations on participants, even when their goal is to remain objective. My personal stance, which values power-with dynamics rather than power-over, was complicated by my dual role and the inherent authority participants may have attributed to me. I also had a dual role of student and researcher, which carried another set of power dynamics between me, stakeholders, and the university, which also influenced my research and PhD goals. This value-laden context highlights the assumption that multiple realities exist, and the situation of the researcher is an integral part of this dynamic (Angrosino and Pérez 2000).

Colbourne and Sque (2004) discuss how power dynamics can shape the interactions between researchers and participants, especially when the researcher has previously worked in a professional capacity similar to the participants. In my case, my status as a former specialist midwife and now research student positioned me as an outsider, though participants may have seen me as an insider due to our mutual professional background and role assumptions. These shifting dynamics influenced my interactions with the participants. My pragmatic stance, grounded in ethical research standards, helped me navigate the complex and challenging context of the study. However, balancing the requirements of my PhD with the maternity service's research goals left me feeling that I had limited agency and control over the unfolding events. This sense of helplessness was compounded by my limited experience as an early career researcher and my difficulty in managing participant engagement, particularly as many participants appeared to me to be in a state of emotional exhaustion, which was reflected in the outcomes of the study.

Emotional investment in a project can make it difficult for researchers to separate their professional identity from their role as a researcher (Berger 2015). My emotional investment in the project, coupled with my empathy for the midwives' plight during the pandemic, created significant stress and anxiety. Although I relied on pragmatic assumptions and strategies to cope

with the pressures of the research, the emotional toll was evident, particularly during the follow-up cycle of repeated measures. The last group meeting was emotionally charged, as participants struggled to balance their own control and agency with the demands of their professional roles. Hiller and Vears (2016) noted how power dynamics can inhibit participants from fully challenging the intervention's value, which may have been the case in my study. This is particularly true when there are power imbalances between the researcher and participants. Participants may have felt pressured to conform to my expectations, a dynamic that was likely amplified by my dual role as both facilitator and researcher.

However, the emotional burden placed on researchers can impact the research process (Guillemin and Gillam 2004). I did not fully contemplate just how much my complex position would also create personal dilemmas. My research aspirations and goals shifted to a state of vulnerability and a lack of control over the events. The culmination of stress, combined with my emotional attachment to the project, resulted in hospitalisation and an early conclusion to the study. The power dynamics between me and the participants, along with the complex emotional conditions and environment, undoubtedly shaped the participants' engagement with the study. Despite the challenges, my pragmatism allowed me to remain hopeful and adaptable throughout the study and beyond. Moving forward, I aim to prioritise participant-driven outcomes and adapt the study design to better align with the needs and readiness of this non-clinical population.

Conclusion

Critical reflexivity has been instrumental in navigating the complexities of this study. By examining how my positionality, assumptions, and dual roles influenced the intervention, I have identified important lessons for future research. These reflections highlight the need for longer interventions, clearer role delineation, and strategies to reduce the participants' burden in non-clinical settings. Balancing the tensions between researcher and facilitator roles requires ongoing reflexivity to ensure both ethical and methodological integrity. Future studies will benefit from these insights, enabling more robust and impactful research outcomes.

10.12.6. Data Collection Tools

The data tools and collection methods employed may not have comprehensively captured all relevant aspects of the participants' experiences and responses to the DBT intervention. While the choices of measures for the study were theoretically driven (Chapter 5), the MSCEIT measure may benefit from a strategic interval application that considers a much longer-term assessment. The addition of stress and anxiety measurements may give researchers an added understanding

of how this construct affects other dimensions under scrutiny. However, the cadence of the MSCEIT as a longitudinal measure should be retained, rather than an immediate post-test.

Additionally, structuring data collection to invite participants' attendance at designated in-person sessions for measure completion could enhance both protocol adherence and timeliness. Such sessions could integrate DBT-relevant skill drills, dedicated question-and-answer periods, and debriefings to promote higher engagement levels in future studies. This approach offers an alternative to monetary incentives, which raise ethical concerns (Różyńska 2022), by fostering commitment through trust-building activities and professional support such as reimbursement for time or backfill coverage. Unfortunately, health and safety restrictions imposed by the host organisation in response to the COVID-19 pandemic curtailed in-person interactions. This limited the opportunities to cultivate trust and engagement, which, in turn, may have impacted pilot outcomes and participant disengagement.

The above limitations of the DBT-ST pilot reveal complex and interrelated challenges in conducting this study under these conditions in this professional setting. The mixed outcomes of the preliminary effectiveness of DBT-ST for reducing some factors of emotional well-being in midwives, such as emotional labour and emotional exhaustion, have indicated its potential, despite significant limitations. As a first attempt to apply this programme to this population, the insights gained serve to inform and improve study designs in subsequent iterations. Although the study did not wholly achieve its full potential to address its objectives, it provided valuable insight for improving the programme within the midwifery profession. Lessons learned from the limitations reviewed above highlight the factors that can be addressed to enhance the delivery of DBT-ST in this non-clinical population. Conclusions will be drawn and discussed in the following chapter.

10.13. Summary

This chapter discussed the DBT-ST pilot's findings and focused on discussions of the ANCOVA results for the URICA, ELS, MBI, DERS, CD-RISC, and MSCEIT measure outcomes. This discussion situates the results within the challenging context of the COVID-19 pandemic, the clinical setting, and piloting of a novel intervention in this field. The outcomes were reviewed in relation to the midwifery and wider literature. Although the pilot produced limited significant outcomes, the information gained, particularly from the DERS and MSCEIT measures, raised questions about the levels of emotion regulation abilities in participants. Though there were considerable limitations, significant insights and critical reflections were gained. The multifactorial drivers

operant in this pilot study challenged the potential benefits of DBT-ST in enhancing midwives' emotional well-being and resilience. Therefore, these limitations were scrutinised with an added critical reflection from the researcher to strengthen these insights. The following chapter will consolidate these insights, draw conclusions and demonstrate how this study has brought original contributions to the evidence base.

Chapter 11. Conclusion

11.1. Introduction

This thesis offers insights into the possibility of introducing and conducting the online Dialectical Behaviour Therapy Skills Training (DBT-ST) intervention within the midwifery profession. While initial interpretations suggested potential for both feasibility and acceptability of this programme, a careful re-examination of the data revealed a more complex, multifaceted scenario that necessitates careful critical reflection and interpretation.

11.2. Summary of Key Findings

Data analysis revealed mixed outcomes from the pilot. Although the ELS scores revealed statistically significant results, the MBI demonstrated only partial effects, with significance observed only in the Emotional Exhaustion subscales, while the Depersonalisation and Personal Accomplishment subscales remained unaffected. Additionally, the DERS, CD-RISC, and MSCEIT measures did not show significant differences compared to the control group. Overall, the outcomes of this pilot study do not permit a definitive conclusion regarding the effectiveness of the intervention in terms of improving the well-being factors measured.

Instead, the quantitative results, particularly the baseline MSCEIT scores and the DERS results, indicated that the intervention was not sufficiently tailored to the needs of this non-clinical population. Rather than viewing this as disappointing, the pilot provides invaluable insights into the levels of well-being factors in participants, which have not been previously collected in this profession. Without prior knowledge of these levels, the pilot could not adequately address their emotion regulation requirements before making methodological choices. This misalignment suggests that, while DBT-ST has promise, the configuration and delivery of its modules require significant refinement and subsequent further piloting to better meet the specific emotional needs of midwives.

Moreover, the pilot's significant outcomes for emotional labour and emotional exhaustion raise more questions about the role of these constructs as regards the sustainability of well-being amongst midwives, despite the DBT-ST positively affecting these factors. Although the literature has underlined that chronic stress leads to emotional exhaustion and lower job satisfaction, there is limited midwifery literature on the role of emotional labour in the context of emotion regulation. While emotional labour is often positioned as a mechanism for enhancing organisational productivity, it can simultaneously produce negative consequences for midwives'

well-being, including emotional exhaustion, stress, and identity strain resulting from the internalisation of performance-based behaviours. This is a concern that warrants greater attention. Rather than merely acknowledging that midwives regulate their practices through emotional labour strategies and suffer their negative consequences, researchers should prioritise addressing this phenomenon (Section 3.6.3).

This involves examining how emotional labour impacts the internal and external mechanisms of practice performance. Such an approach could provide deeper insights into the roles of emotion regulation and emotional intelligence in midwifery and offer pathways to mitigate its detrimental effects.

It is acknowledged that the PhD student's expectations were slightly too optimistic. The evidence does not robustly support a claim of the intervention's broad feasibility at this early stage of such research in this profession. Rather it calls for the re-evaluation of the intervention's suitability concerning its alignment with the specific needs and circumstances of midwives. Therefore, this conclusion acknowledges the multifaceted reality revealed by the comprehensive analysis, aligning more closely with the complexities observed during the pilot.

11.3. Limitations of the Pilot

On reflection, this study encountered several significant limitations that are likely to have had an effect on its outcomes (Table 11.1).

Table 11.1 Factors affecting the work conducted for this PhD research

• Crisis context; COVID-19 pandemic • Logistical and operational modifications to the original protocol ○ Reduction of the length of the intervention to six weeks ○ Transition to online delivery format ○ Researcher as the sole facilitator ○ Recruitment challenges; staggered group ○ Small sample size • Clinical setting; Participants' competing priorities • Participant disengagement after the intervention • Researcher's' dual role, Power dynamic, biases; critical reflection • Methodological ○ MMR design ○ Repeated Measures • Lack of existing cognitive baselines of individual differences • PhD timeline, researcher's illness

Table 11.1 first and foremost lists logistical constraints due to the ongoing COVID-19 pandemic. This required the adaptation of the intervention to a shortened six-week version and required the researcher to assume the role of facilitator. Recruitment challenges at the maternity service related to COVID-19 at the time and contributed to a smaller sample size and staggered group sequencing. These challenges meant the researcher had to assume the dual role of facilitator and analyst, complicating her responsibilities and creating an additional power imbalance with participants. These factors introduced biases that inevitably complicated the final analysis of the study and undermined confidence in its outcomes.

The ongoing disruption saw the introduction of staggered groups to maintain the methodological choices of the original design that required comparison and control to strengthen the reliability of the findings. The resulting configuration of these groups may have introduced temporal confounding variables, which could have been mitigated by benchmark data revealing temporal trends. The benchmark data could have been utilised with statistical adjustment methods such as mixed-effects models or time-fixed covariates. This external data would have assisted in isolating specific intervention effects versus naturally occurring changes. This pilot highlights that the lack of benchmark data for emotion regulation factors is crucial for future research in providing a robust framework for similar interventions.

Another challenge involved delivering the intervention programme within the clinical setting. Most participants were in the induction phase of their first appointment as registered midwives. This was further complicated by the ongoing pandemic and their recent experiences as student midwives during this period. These combined factors placed an additional burden on participants. They were required to manage new learning while also balancing competing priorities as they entered clinical practice under highly challenging circumstances.

In this context, there are significant challenges associated with engaging clinically-based healthcare professionals, particularly in the context of crisis. Although participants demonstrated interest in the majority of the DBT-ST content during sessions, this engagement was not sustained, particularly after the intervention. Their disengagement was likely a combination of complex factors. The researcher's critical reflection considers the influence of her unintended dual role. This dual role may have affected the quality of pedagogical delivery during the intervention, as well as shaped power dynamics and interpersonal effectiveness. It may also have contributed to internal expectations arising from her simultaneous insider and outsider positionality. These factors could have influenced participants' behaviour throughout the study.

These factors, along with competing priorities and environmental context, potentially contributed to reduced interaction and diminished participation, which may have impacted the reliability of the study's findings. Reflecting on these challenges, future research should incorporate more flexible engagement strategies and robust support systems to better accommodate participant needs, especially under crisis conditions. Addressing these engagement issues is crucial for ensuring the validity of research outcomes and enhancing the overall quality of interventions in high-stress professional environments.

Another consequence of the pandemic health restrictions was the transfer of the intervention to an online format. Although this format provided a flexible alternative in these circumstances, it introduced limitations, particularly for the distress tolerance module where modelling of skills through roleplay was unable to be achieved. While the sessions on core mindfulness, emotion regulation, and interpersonal effectiveness saw increased engagement from participants, the distress tolerance module noted a significant lack of engagement. This was surprising because these techniques have the potential to be transferable to women in the perinatal period. Given the value of this particular DBT-ST module, this session should in future prioritise a face-to-face format.

The pilot study employed a robust methodological framework. The measures were carefully selected to align with the intervention's objectives and to minimise participant burden while maximising data richness. However, given the context in which the pilot was conducted, it was difficult to avoid the impact of the heightened stress and its possible impact on data. Sophisticated analytical techniques were applied to interpret this data, enabling a nuanced understanding of the intervention's impact.

However, addressing participant fatigue requires a reassessment of the cadence of data collection. It also calls for a reprioritisation of measures that are more closely aligned with the themes of the intervention. For instance, prioritising the DERS, ELS, and MSCEIT rather than MBI and CD-RISC and applying the MSCEIT as a longitudinal measure rather than repeating this measure post-intervention. These alterations target the specificity of the intervention and may reduce the burden for future participants.

The challenges and consequences of the researcher's unintended dual role during the DBT-ST intervention, as discussed in Section 10.12.5, highlight the importance of how role conflicts can influence both intervention delivery and research integrity. This reflection, which encompasses the difficulties of conducting research during the COVID-19 pandemic, offers evidence of the complexities and consequences incurred by the logistical and operational adjustments made

during this period. The unintended consequences of taking on the dual role affected both the pilot and its outcomes. The researcher and the participants were left to navigate a complex emotional landscape, where professional and research dynamics were continuously influenced by external crisis conditions that potentially impacted research integrity.

Highlighting the unintended consequences of the dual role and the steps taken to address these through reflexivity enhances the credibility and rigour of the research, offering valuable insights into managing similar challenges in future studies. Section 10.12 along with Section 10.12.5 not only contextualises the difficulties encountered but also enriches the understanding of the study's findings and their implications for future research in similar crisis scenarios. This reflection serves as a vital learning exercise, not only for the researcher but also for the broader academic community, illustrating the need for increased vigilance regarding research bias and the importance of maintaining rigour under challenging conditions.

As the first study to pilot emotion regulation strategies within a psychoeducational intervention for a non-clinical population, this research aimed to explore the feasibility of the intervention in a professional setting. The DBT-ST module content and its skill sets were contextualised within the midwifery practice context. Although limited, there is literature and anecdotal evidence suggesting that midwives tend to have higher emotional intelligence than others (Snowden et al. 2015). Operating under the assumption of a sufficient foundational understanding of emotions, the content of the DBT-ST curriculum was configured and distributed across the six weeks, rather than tailored to any specific needs of participants. After assessing the emotion regulation outcomes (DERS and MSCEIT), it became apparent that significant adjustments to the time allocated to emotion regulation and interpersonal modules are required to address the participants' shortfalls in regulation. Future iterations of DBT-ST interventions will likely require an extended period.

This limitation highlights the gaps in the midwifery evidence base. The pilot was conducted without foundational cognitive data on the emotion regulation abilities of midwives. Although the literature consistently shows empirical evidence on burnout levels of midwives, to date there has been no recording of quantitative data on factors of emotional regulation. Furthermore, while midwifery scholars have highlighted the importance of emotions and emotion work, there is a notable lack of quantitative data on emotional labour and limited overall research specifically focused on emotion regulation in this field. These are significant gaps in midwifery knowledge and its evidence base.

11.3.1. Future Research Directions

This study highlights two primary areas for adaptation in future research: (a) extending the duration of the intervention and employing a face-to-face delivery format where possible, and (b) analysing emotion regulation measures prior to the start of the intervention. This would inform appropriate adaptations to the sequence and timing of DBT-ST modules. Quantitative measures should be given considered attention with respect to the specificity of the intervention, cadence of repetition, and longitudinal perspective in the context of competing participant priorities. Additionally, the DBT-ST intervention should be facilitated by a skills DBT-informed lead and co-facilitated by a midwifery specialist. This combination is supported by Beanlands et al. (2019). Future research must increase the sample size to enhance the statistical power of the findings. These adjustments are essential to truly determine the intervention's effectiveness and to ensure that future implementations can be better customised to meet the needs of midwives.

11.3.2. Summary of Limitations

In conclusion, while the DBT for Midwives pilot study addressed emotional challenges in the profession, the realities of its implementation have led to a more tempered view of its current feasibility in the context in which it was conducted. The lessons learned from this pilot are critical for refining future interventions, ensuring they are robustly designed and tailored to effectively support the emotional well-being of midwives.

11.4. Implications for Practice

Although the pilot's mixed findings did not reveal conclusive evidence for the DBT-ST intervention's efficacy, it revealed valuable insights on conducting such interventions within a practice setting. It also revealed the gaps in the evidence concerning the emotion regulation skills of midwives.

Findings also highlight significant challenges in emotional regulation and intelligence among midwives, demonstrating critical gaps in existing research and the practice evidence base. Despite the crucial role of emotions in midwifery care, there is a notable lack of experimental research determining the individual differences among midwives in these constructs. This oversight, despite the plethora of research evidence emphasising the emotional challenges to midwifery retention and sustainability, suggests a pressing need for targeted research, interventions, and training programmes designed to enhance these skills among midwives.

Given the empirical evidence of the emotional demands of midwifery, the pilot has highlighted that further research developments in emotion regulation factors are needed. Incorporating structured emotional regulation training into both pre-service education and ongoing professional development could provide significant benefits. Such training should be evidence-based, drawing on the findings from this study and future research, to effectively address the specific emotion regulation challenges identified. Programmes could include modules on managing stress, recognising and regulating emotions in high-pressure situations, and strategies for enhancing interpersonal relationships with colleagues and clients. The DBT-ST curriculum has been successfully applied for this very objective in schools and university settings (see Section 4.5).

Furthermore, regular assessments like those used in this study, such as the DERS, could be integrated into routine professional development to monitor and support midwives' progress in developing these essential skills. This approach would not only help in identifying areas needing attention but also in measuring the impact of the implemented training over time.

Ultimately, enhancing emotion regulation training for midwives not only supports their personal well-being but also improves care and safety outcomes (Section 4.2 and 4.3). As such, healthcare institutions and universities should prioritise the development and integration of these training modules into their standard curricula and support frameworks.

The scoping review found that, while many aspects of adversity in midwifery are structural and therefore non-modifiable, interpersonal and intrapersonal factors related to emotional work are modifiable factors of emotion regulation. These factors had not previously been synthesised in the midwifery literature, although seminal research has highlighted the importance of the emotion work, including the emotional literacy of midwives (see Section 3.6). The potential for DBT-ST to address these factors in the midwifery profession has not been previously studied. This thesis has attempted to fill a critical gap in the literature but also sets a precedent for future research and practice by integrating emotion regulation interventions in professional training.

The findings from the scoping review, combined with the theoretical framework in this thesis, suggest that interventions such as DBT-ST could offer a valuable strategy for reducing the impact of workplace adversity by improving emotion regulation abilities. Although this pilot aimed to support these outcomes, the limited understanding of individual differences among midwives contributed to a misalignment between the intervention design and participants' well-being profiles. This insight directly informs future intervention development. In this sense, the pilot represents an initial step in refining the intervention's design, while continuing to evaluate its

potential efficacy, applicability, and acceptability within the profession. It is hoped that this research will inform policy in midwifery settings and influence how training is designed to support midwives, ultimately contributing to improved job satisfaction, reduced turnover, and better care for women and families.

Moreover, the pilot also highlighted the challenges of conducting interventions of this nature in NHS practice, particularly regarding competing clinical priorities of practising midwives. This pilot has shown that pressured environments limit individual availabilities and abilities to fully engage in these lengthy interventions. With these considerable constraints, flexibility is crucial in developing strategies to cater to these requirements. Future research should include modifying session lengths, formats, content or combinations to better align with the practical realities of midwifery work environments. As VLE formats are regularly applied in this context, a possible virtually designed DBT-ST programme with interactive components and animations to support skill learning may be a way forward for this particular group. Conversely, if foundational DBT-ST knowledge was gained during pre-registration training, top-up DBT skill days could be incorporated into DBT skill days across the year. Periodic evaluation could be gained to inform progress or indications for remedial action. Midwives who develop proficiency in DBT skills may also help shape team culture by modelling constructive emotional regulation strategies in practice.

11.5. Implications for the Wider Context

This research joins the evidence base of the versatility and relevance of DBT-ST to the wider non-clinical populations, similar to pilots conducted in school settings (see Section 4.5.11). The success of these programmes depends on the continued development of culturally relevant materials. Further research is needed to refine these interventions and address the logistical challenges identified. Similar to those studies, this pilot identified both the potential benefits and the logistical challenges associated with implementation. Drawing on complaints from participants, improvements and adaptations were identified (measures were too long). Like other interventions, DBT-ST faces limitations related to dropout rates, time constraints, and facilitator efficacy. Conversely, its strengths lie in being an established, manualised modular approach that offers flexibility and ease of applicability across various settings. The effectiveness of DBT-ST as a well-being intervention in non-clinical populations continues to be evaluated by the wider research community.

DBT-ST is an evidence-based, transdiagnostic intervention typically aimed at clinical populations. When adapting this intervention for non-clinical populations, a foundational understanding of

their baseline cognitive processes is essential. Transdiagnostic communities often receive DBT as a secondary, specialised service within Community Mental Health Teams (CMHT). These individuals will have likely received some exposure to psychological therapies, gaining knowledge about emotion regulation.

In contrast, non-clinical populations may lack this prior psychological education. This gap necessitates collecting some understanding of cognitive profiles to tailor interventions effectively. Previous universal applications of DBT-ST across various populations have consistently revealed limitations, such as issues with measures, formats, lengths, and facilitation styles. These pilots require adaptations to meet the specific needs of each new population. This pilot faced the same limitations as other universally based pilots in this domain.

Moreover, this pilot study encountered exceptional external disruptions, compounding challenges inherent in a professional clinical setting. These included difficulties in engaging and maintaining participation among clinically-based individuals, which had previously been identified (see Section 4.5.6). Nevertheless, population profiles and baseline assessments of cognitive abilities are crucial for this specific population if interventions are to be predicted and evaluated. Establishing baseline measures is a fundamental component of planning and evaluating interventions, as it supports the assessment of their relevance and effectiveness. By implementing the insights gained from this pilot, future iterations of the DBT-ST intervention can be improved. These improvements may not only support the well-being of individual participants but also influence wider workplace dynamics. In turn, this may enhance the overall quality of care provided to women and their families. DBT-skilled midwives would also bring benefits for the wider culture in healthcare environments. As outlined in Section 2.8 and 3.6.5.1, the literature attests to working environments being regarded as challenging, with a culture that perpetuates the negative thoughts of being unsupportive. Midwives who are DBT-skilled may affect their immediate environments with a more positive approach for the benefit of others.

The adaptation of DBT-ST could provide a model for future interventions aimed at occupational groups with similar stressors and emotional demands. Healthcare organisations have developed support through occupational health for their staff. However, little is known about their influence on the cultures that prevail in their midst, nor is there an evidence base for understanding how these cultures develop. Although well-being and resilience have been an aspirational goal, there are no evidence-based interventions that support these goals. DBT-ST in its universal approach may begin to address these challenges. Developing policies that support emotional skills training

and resources for midwives and the wider healthcare population can give recognition to the high-stress and emotional nature of their work.

Organisations and maternity services have implemented yearly skills and drills to develop and maintain safety levels; however, none of these drills involve the management of midwives' emotions. Yet, midwives must also be experts in their emotion work, which is the unseen and unaccounted driving force behind the care imparted. Without robust expertise in emotion management, midwives may internalise their emotions, leaving them vulnerable to the cumulative effects of emotional experiences that become embedded in practice. This hidden vulnerability may, over time, lead to an accumulated burden that erodes resilience.

11.6. Contribution to Knowledge

The application of DBT-ST tailored specifically for midwives represents a novel approach. This extension to non-clinical populations marks an emerging field of research. Inspired by the assertions of its founder, Marsha Linehan, regarding the broad utility of these skills beyond traditional psychological boundaries, this application has served as a proof of concept in midwifery. Furthermore, the groundwork for the pilot was founded on the results of a comprehensive scoping review and a robust theoretical framework, establishing a solid basis for evaluating its impact and assessment.

11.6.1. Proof of Concept

This pilot study serves as a proof of concept that provides a formative and epistemological foundation for future research and experimentation within midwifery and psychological interventions. This initial exploration helps to establish an ethical and knowledge-based framework, paving the way for more detailed and expansive studies that can further refine and validate the intervention.

As a proof of concept, this pilot provides a formative and epistemological foundation for the intervention tested on a small scale, which is characteristic for a proof of concept, to manage risks and focus on the essential aspects of the intervention. The pilot had clear, focused objectives to test the viability of DBT-ST for midwives, aiming to assess its initial acceptance and effectiveness without delving into a full-scale, comprehensive evaluation. Furthermore, the pilot showed technical feasibility by demonstrating that it is possible to adapt DBT-ST to the unique circumstances of midwives. The pilot tested the intervention in a real-world setting, providing insights into operational challenges and adjustments needed to implement such training effectively within the existing structures of midwifery care. Even though the pilot faced

limitations, it established preliminary metrics for success, such as participant feedback on the intervention's relevance and utility. It provided preliminary evidence that DBT-ST could be beneficial for midwives' emotional labour, potentially improving their emotional regulation and reducing job-related stress. Pilot data provided a base for evaluating the intervention's impact on emotional regulation among midwives. The study addressed the gap in existing interventions by targeting emotional regulation directly, demonstrating that DBT-ST could fill a crucial need in midwifery practice. Insights from the pilot can be used to refine the intervention, adjust methodologies, and plan for a larger, more comprehensive study.

11.6.2. Key Contributions

Key contributions from the pilot study are eight-fold:

1. Evaluation of DBT-ST in a Non-Clinical Population and Midwifery Profession

This pilot study is the first to evaluate the feasibility and potential effectiveness of DBT-ST as a universally applicable psychoeducational intervention specifically adapted for midwives. In doing so, it extends the use of DBT-ST beyond its traditional clinical and transdiagnostic contexts into a new non-clinical, professional setting.

Although the pilot rendered mixed results, the insights gained are invaluable in highlighting the potential of DBT-ST within the midwifery profession. At the same time, the findings demonstrate the critical need for adaptations that are specific to the context of non-clinical populations. Reflecting on this experience, it is evident that pilot studies like this one are crucial stepping stones that can inform larger, more definitive research, providing guidance towards interventions that are not only theoretically promising but practically applicable in real-world settings.

2. Introduction of Quantitative Emotional Regulation and Intelligence Assessments in Midwifery

The pilot pioneers the use of the DERS and MSCEIT within the midwifery profession to quantitatively assess emotional regulation and intelligence, areas previously underexplored in this field. As indicated from the scoping review, emotion regulation factors represent a significant gap in midwifery literature. The pilot data, although not representative of the wider population, does offer the baseline data collected from the DERS and MSCEIT. While limited by a small sample size, this data still holds significant value for the field of emotion regulation research. It offers preliminary insights into patterns of emotion regulation abilities amongst

midwives, providing a crucial foundation for hypothesis generation in future studies. By identifying specific areas where emotion regulation might be lacking, this data can help tailor and refine the design of future interventions, ensuring they are more targeted and potentially more effective. Moreover, they can offer a point of comparison for assessing the impact of similar interventions in larger, more diverse samples. Such benchmarks are invaluable in the iterative process of scientific inquiry, allowing for the gradual refinement of hypotheses and intervention strategies.

This pilot study stands as one of the initial attempts to collect quantitative data on emotional intelligence and emotion regulation within the midwifery profession, an area previously unexplored in this context. The lack of existing data posed a unique challenge for the design of the DBT-ST intervention. Without baseline quantitative insights into the specific emotional intelligence and emotion regulation needs of midwives, tailoring the intervention to address their precise requirements was inherently constrained. This limitation highlights a critical gap in the field, which was highlighted by the results of the scoping review in this thesis. Understanding the emotional and cognitive baselines of professionals within such high-stress environments is essential for developing effective support strategies. Although the pilot's outcomes do not show definitive preliminary effectiveness, the lessons learned can inform future improvements for both the DBT-ST curriculum and for study designs that will be more suited to this population.

The absence of prior data necessitated a broader approach in the initial design of the intervention, which, while comprehensive, may not have fully catered to the nuanced needs of the study's participants. This experience underlines the importance of foundational research in emotional metrics before the application of targeted interventions. It suggests that subsequent studies should prioritise the establishment of robust emotional and psychological profiling as a preliminary step.

3. Tailoring Psychosocial Interventions for Midwives

The pilot demonstrates the importance of tailoring psychosocial interventions to meet the specific emotional and professional demands of midwives, providing a model for future interventions in similar high-stress professions.

This study's transparent discussion of its limitations also serves an educational purpose. It highlights the critical importance of sample size and study design for future researchers. It also promotes rigorous standards in the interpretation of results and the reporting of research.

Additionally, the challenges encountered during data collection and analysis underscore the need for robust methodological approaches. This is particularly relevant in non-clinical populations, where variability in emotional skills can be more pronounced.

Overall, the data from this pilot enrich the existing literature. They contribute to a better understanding of the role of emotions in healthcare and can inform the development of more effective, evidence-based practices for managing emotion regulation.

4. Dealing with the Impact of External Crises on Intervention Outcomes

The study explores how external factors, i.e. COVID-19, affect the implementation and outcomes of research interventions, offering insights into adapting research methods and intervention delivery in crisis conditions.

The execution of this pilot study amid the COVID-19 pandemic further illustrates the complexities and challenges of conducting research under crisis conditions. The insights derived from conducting this pilot under such extraordinary conditions are important, offering guidance for future research strategies in similar crisis scenarios. These insights highlight the importance of anticipating potential disruptions. They also emphasise the need to incorporate contingency plans that support the continuity and reliability of research outcomes. This approach ultimately enhances the robustness of research conducted in high-pressure or rapidly changing environments.

5. Advancing Methodologies in Emotional Training Research

The study develops and refines methodologies for assessing the impact of DBT-ST, as well as emotional intelligence and regulation training in a professional setting, contributing methodological advancements that can guide future research in midwifery and psychology fields.

By adapting the transdiagnostic DBT-ST model into a universal psychoeducational application specifically for midwives, this pilot study introduces a methodological shift within the midwifery profession. This adaptation contributes to the developing field of DBT-ST for non-clinical populations. By applying this well-established psychological intervention in a new, context-specific manner, DBT-ST for Midwives establishes a methodological advancement. This adaptation involves the customisation of standard DBT-ST techniques to address the unique emotional demands and stressors of midwifery. This not only serves as an innovative application but also sets a precedent for how psychological interventions can be contextually modified for other specialised professions.

The pilot introduces the DERS and MSCEIT measures to midwifery participants to quantitatively measure outcomes related to emotional regulation in midwives. These psychological tools enabled the capture of emotion regulation factors of midwives that demonstrate a methodological advancement and also help to address this significant gap in the midwifery evidence base.

6. Implications for Policy and Practice in Healthcare Settings

The study provides evidence-based recommendations for integrating emotion regulation training into healthcare settings. These recommendations have the potential to inform policy changes aimed at improving the well-being and effectiveness of healthcare professionals. Despite the challenges faced, the study makes an important contribution to the existing body of knowledge. It highlights the urgent need for systematic emotional assessments within midwifery. Furthermore, it lays the groundwork for a more empirical understanding of the emotional dimensions that influence midwifery professionals. This understanding can guide the development of interventions to support emotional resilience and regulation.

7. Further Insights into Emotion Regulation in Midwifery

The scoping review identifies emotion regulation factors as significant gaps in the literature, setting a foundation and paving the way for targeted inquiries and intervention developments in future further research. This review identifies significant gaps in the midwifery literature on emotion regulation. It also enhances the understanding of what may be considered a modifiable risk within the current landscape. In doing so, it sets a foundation and offers a roadmap for future research. This contribution strengthens the evidence base that informs both practice and policy in midwifery and related professions.

8. Theoretical Framework

The study developed a theoretical framework that integrates concepts from psychology and midwifery to explore the effectiveness of DBT-ST for emotional regulation among midwives. This framework not only guided the research design and findings interpretation but also provided a novel model for applying interdisciplinary approaches in healthcare, enhancing theoretical understandings and encouraging further research in complex healthcare settings.

11.7. Summary

This thesis has presented the evidence for promoting factors of well-being through the introduction of the universal application of DBT-ST and its applicability to midwifery, particularly for the early stages of their careers. The pilot study, conducted under challenging circumstances, serves as a proof of concept and, despite some limiting factors within the study procedures, produced limited mixed results. However, this was the first step in the field of emotion regulation as a potential strategy to promote well-being and resilience in midwifery. The DBT-ST programme, appropriately adjusted for midwives, focuses on enhancing emotional literacy and emotion regulation. It has been supported and recommended by scholars with evidence in the midwifery literature.

The pilot study “DBT Skills Training for Early Career Midwives” has been established with a comprehensive framework and protocol that can be flexibly adapted and applied to future studies. Furthermore, it paves the way for an innovative field of research, where the integration of psychosocially based training and midwifery practice can be explored in greater depth. From the lessons learned from the pilot, future investigations may focus on long-term impacts, broader participant demographics, and varied clinical settings to validate and refine the DBT-ST model in midwifery.

This thesis opens a new area of interdisciplinary research, blending the fields of psychology, mental health, and midwifery. It highlights the importance of emotional well-being in midwives and healthcare professionals and sets a precedent for incorporating psychosocial strategies into professional training programmes. The implications of this research can be far-reaching, suggesting a paradigm shift in how emotional skills are valued and developed in the profession of midwifery and the wider healthcare sector.

Overall, the thesis contributes to academic knowledge in eight related interacting ways, including a call to refocus on emotions in midwifery practice and research. It advocates for a focus on the unseen and unacknowledged work of midwives, where emotional acuity is recognised as integral to professional competence and the compassionate care of women and colleagues. This work stands as a testament to the potential of innovative interventions in shaping the future of the midwifery profession, ultimately enhancing the well-being of both midwives and the women they serve.

The final chapter articulates the recommendations from this PhD study.

Chapter 12. Recommendations

12.1. Introduction

This chapter outlines structured recommendations derived from both the findings and the limitations identified in this pilot study of DBT Skills Training (DBT-ST) for midwifery. The recommendations, especially those aimed at enhancing the application and methodological design of DBT-ST, should be seen in the light of what might work, rather than what would work.

By addressing the specific challenges identified, these strategies seek to strengthen the applicability and impact of future interventions within both educational and clinical settings. Targeted recipients of these recommendations include midwifery researchers, educators, practitioners, and policymakers.

12.2. Research and Development in Future Studies

Additional research is essential to further explore the development and implementation of DBT-ST in a practice-based context. This PhD study's findings suggest the need for further research under different non-pandemic settings.

12.2.1. Optimise Study Conditions and Settings

Non-Crisis Setting Implementation: Recommend conducting future iterations of the DBT-ST under non-pandemic conditions to better assess the intervention's effectiveness without the confounds introduced during a crisis. This will allow for a clearer evaluation of the intervention's efficacy in regular clinical environments.

Role Clarity: Ensure that facilitators have distinct and defined roles, separating those of facilitator and researcher to avoid possible bias. Where possible, involve co-facilitators who possess expertise both in DBT-ST and midwifery to enhance the delivery and relevance of the training.

12.2.2. Methodological Refinements

Utilise a two-phased Mixed Methods Research (MMR) sequential explanatory design, including a control group to enhance the validity and reliability of findings. The first quantitative phase should incorporate a flexible cohort design with multiple session offerings, referred to as a Hybrid Flexible (HyFlex) cohort design. This design should accommodate clinical participants, allowing them to engage with the intervention at variable times.

Phase 1: Include a single baseline assessment for all participants in both the intervention and control groups, at the same starting point. This ensures that any pre-intervention data are uniformly collected, allowing for a clear initial comparison between groups.

DBT-ST intervention: Once the baseline data are analysed, the intervention content should be tailored to address the specific needs and deficits identified within the intervention group.

Intervention length: The length of the intervention should be based on both: (a) the needs of the cohort, and (b) DBT-ST module content. This thesis recommends moving away from a fixed-duration intervention. Extend the intervention period to span several months by spreading the sessions out to provide greater flexibility. However, this would require the facilitators to repeat module sessions over this period.

Phase 2: Conduct semi-structured interviews to assess the feasibility and applicability of the intervention and its skill set to practice. These interviews can help identify any unforeseen issues or confounds that arise during the intervention, offering qualitative evidence that supports or contextualises the quantitative findings.

12.2.3. Hybrid Delivery Model

Flexible and Accessible Formats: Employ a hybrid model that includes online theoretical components to allow for greater flexibility in scheduling. This model should also incorporate in-person sessions for practical components like role-playing and skill practices, which are critical for effective learning and application in clinical settings.

Multiple Session Offerings: To accommodate the varied schedules of clinical staff, offer each session multiple times and on different days. This approach ensures all participants have an opportunity to attend each session without compromising their clinical duties. Ensure sufficient resources (staff) are planned for such multiple offering of sessions.

12.2.4. Continuous Support and Practical Integration

Ongoing Support Mechanisms: Establish regular support sessions, both during and after the intervention, to help participants integrate DBT skills into their daily practice. These sessions should offer guidance, address practical challenges in real time, and reinforce learning.

Integration into Clinical Practice: Recommend strategies for integrating DBT skills into regular staff training and development programmes. This could involve short, regular workshops that refresh and expand on DBT skills as part of continuing professional development.

12.2.5. Evaluation and Follow-Up

Practical Feasibility and Fidelity Assessments: Include evaluations of both the feasibility of the intervention within the clinical setting and fidelity to the intervention protocol. This could be assessed through direct observations, participant feedback, and facilitator reports.

Longitudinal Tracking and Adjusted Follow-Up Schedules: To capture the long-term effects and sustainability, provide follow-up assessments several months post-intervention. This allows for a comprehensive view of the intervention's enduring impacts on clinical practice.

12.2.6. Reduced Participant Burden

Focused measures should include the DERS, MSCEIT, ELS and the Perceived Stress Scale (PSS). Fewer measurement points can lower the overall burden on participants and hence improve participation rates and reduce dropout rates.

12.3. Educational Setting Implementation

12.3.1. Addressing Environmental Challenges

Recognise the limitations of conducting the DBT-ST intervention in a clinical setting with significant competing priorities. Running future studies in a formative, educational environment could prove more effective.

12.3.2. Early Intervention

Introduce DBT-ST interventions during the formative stages of a midwife's education at the university level to develop adaptive coping strategies early in their career. This may potentially foster a more supportive working culture within the profession.

12.3.3. Support for DBT-ST Programme Establishment

Enhance participation by offering introductory sessions within university settings to educate students on the benefits and applications of DBT skills in midwifery practice. This introductory phase could help bridge the gap between current understandings and the potential benefits of DBT skills, based on feedback from students and faculty.

12.3.4. Enhancing Support for Skill Acquisition

Integration into Continuous Professional Development (CPD): Incorporate elements of DBT-ST into the core practice updates for midwives to address not only clinical skills but also emotional

expertise, such as managing difficult conversations and distress tolerance. This integration could help develop well-being factors within practice.

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Appendix 1. Health Research Authority ethics approval



To: Health Research Authority

Project Title: A Pilot Study to Improve emotional well-being of Early Career Midwives: A Modified DBT Skills Training Group Intervention

As Project Sponsor, Bournemouth University agrees to ensure:

- The research proposal respects the dignity, rights, safety and well-being of participants
- The research proposal is worthwhile and of high scientific quality
- Arrangements proposed for the research are consistent with the UK Policy Framework for Health and Social Care Research
- That organisations and individuals involved in the research have or will agree the division of responsibilities between them

Signature of authorised signatory
on behalf of Bournemouth University:

A handwritten signature in blue ink, appearing to read 'Julie Northam'.

Name:

Mrs Julie Northam

Role:

Head, Research Development & Support

Date:

9th June 2020

Appendix 2. Participant Information Form



Participant Information Sheet

The title of the research project

A Pilot Study to Improve emotional well-being of Early Career Midwives: A Modified DBT Skills Training Group Intervention

Invitation to take part

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Who is organising/funding the research?

This research study is part of a match-funded PhD with Bournemouth University and University Hospital Southampton NHS Foundation Trust.

What is the purpose of the project?

The purpose of the study is to identify what strategies can help early career midwives manage their emotions arising from workplace adversity, work dissatisfaction, low morale, psychological distress and burnout. Early career midwives have been identified as being at risk of leaving the profession within 5 years of their registration. Learning and developing skills to manage emotions is therefore important for newly qualified or early career midwives to maintain job satisfaction, reduce emotional exhaustion and improve their resilience to workplace adversity.

DBT is an evidence based manualised skills training protocol aimed to improve and develop emotional regulation, suggesting that DBT skills can be effective across a variety of emotional needs. There is now a growing interest in applying DBT skills training for diverse populations and innovations are developing across the globe.

DBT manual comprises of more than 50 skills within its four modules, each designed to target a different area of skills deficits in: (a) core mindfulness skills: emphasizing observing, describing, and participating in the present moment effectively and without judgment; (b) emotion regulation skills: including a range of strategies for changing emotions quickly, as well as strategies for changing the tendency to respond emotionally in daily life situations; (c) interpersonal effectiveness skills: from basic social skills training, to assertiveness and goal-oriented interpersonal problem solving in order to negotiate emotions in relationships; and (d) distress tolerance skills: impulse control strategies for short-term actions and long-term strategies to accept difficult life events and realities. DBT may be able to improve emotional literacy and the development and management of emotions across ever-changing contexts which is arguably and precisely what midwives are exposed to on a daily basis. DBT manualised skills training offers an evidence-based implementation framework that may benefit the emotional challenges faced by early career midwives.

The overall aim:

This study is aimed to improve resilience in early career midwives by developing emotional regulation strategies to improve their capacity to manage relationships during the emotional challenges of practice. Additionally, it is to determine whether a Dialectical Behavioural Therapy (DBT) Skills Training group course can modify levels of emotional intelligence, emotional labour, burnout and resilience of midwives. As such, this is a Pilot study aimed to investigate the effectiveness and feasibility of a modified DBT Skills Training group to meet the particular needs of midwifery practice by building emotional strength and expertise of how to managing emotions in the workplace.

Duration of the study:

Phase 1: (6 weeks)

- 2 hours of standardised psychometric scales (pre and post training)
- 6 weekly sessions of 2 hours DBT Skills Training course (*intervention Group only*)

3-months after Phase 1

Phase 2: (2 hours)

- 1 hour of final repeat of standardised psychometric scales
- one semi-structures interview lasting approximately 1 hour

COVID-19 VARIATIONS:

Due to the current pandemic and in order to protect health and safety of participants, the 6-week DBT Skills Training intervention may be conducted via remote access. Some participants may be 'shielding' and/or room availability may be difficult to secure for the group. Social distancing requirements may also limit your learning experiences. We will be ensuring that this will be on an encrypted secure network that complies with data protection legislation to preserves your confidentiality.

Why have I been chosen?

As a newly qualified/early career midwife you have a unique understanding of practice base challenges that all midwives working in the NHS face on a daily basis. You are equally at risk of emotional challenges of midwifery-care and the challenges of that care in the context of working in a large organisation such as the NHS. There is very little research evidence exclusively dedicated to early career midwives and little evidence focused on emotional abilities to manage the complexities of midwifery practice. We believe that DBT skills offered in this training course can help you develop emotional expertise to face the coming challenges in your career.

We are hoping to recruit approximately 10 to 20 midwives to participate in the intervention and an equivalent number to participate in the control group that will not attend the training course. This will help us to assess any differences in data we intend to collect between the two groups via a set of standardised psychometric scales that will be repeated 3 times during the study.

The standardised psychometric data that we will collect from you is aimed to assess the preliminary effectiveness of DBT skills training and evidence its effects on early career midwives practice experiences over the course of the study period.

Eligibility Criteria

Inclusion criteria

- Any early career midwife registered with the NMC working at UHS NHS Trust with 0 – 5 years of practice experience.

Exclusion criteria

- Midwives that are not employed by UHS NHS Trust and who have more than 5 years of practice experience.
- Midwives that have prior healthcare experience before becoming a midwife.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and asked to sign a participant agreement form. We want you to understand what participation involves, before you decide on whether to participate. Deciding to take part or not will not impact upon your employment at UHS NHS Trusts.

If you or any family member have an on-going relationship with Bournemouth University or the research team, e.g. as a member of staff, as student or other service user, your decision on whether to take part (or continue to take part) will not affect this relationship in any way.

Can I change my mind about taking part?

Yes, you can withdraw from the study at any time and without giving a reason, simply by informing the University Research Team (see contact information at the bottom). Although you don't have to give a reason for withdrawing, it may be helpful to the research team to make future improvements.

If I change my mind, what happens to my information?

After you decide to withdraw from the study, we will not collect any further information from or about you. The information we have already collected before this point, your rights to access, change or move that information are limited. This is because we need to manage your information in specific ways for the research to be reliable and accurate. Further explanation about this is in the Personal Information section below.

Please note that depending on when you decide to withdraw will depend on what we have done to your information we have already collected from you. If the information we have already collected from you has been aggregated (anonymised and analyses have begun) our ability to remove your

information will be limited. However, if you withdraw before this anonymization process your information can be retracted from the study according to your wishes.

What would taking part involve?

This depends on which group you decide to join; the intervention group or the control group.

Intervention group:

After you have signed your agreement form, we will ask you to complete the first cycle of the standardised psychometric scales (see list below) and an anonymised demographic questionnaire. After you have completed the pre-tests you will attend the 6, 2-hour sessions of DBT Skills Training course (one every consecutive week for 6 weeks), we will give you the scheduled times and days for the training course. After the end of the training course we will ask you to repeat the second cycle of the standardised psychometric scales (immediate post-test) which will be the end of the first phase of the study. After a period of 3 months, you will be contacted and invited to complete for a final cycle of repeat of the standardised psychometric scales. At this time, you may also be invited to complete a one-hour recorded interview with the Chief-investigator. The purpose of this interview will aim to collect your opinions and experiences of the DBT skills you have found helpful in practice and/or what opinions you may have that would help to improve the course in the future.

Control group:

If you are not chosen to take part in the DBT skills training course and after you have signed your agreement form, we will ask you to complete the first cycle of standardised psychometric scales (approximately 2 hours) and an anonymised demographic questionnaire. 6-weeks later we will ask you to repeat the second cycle of the same standardised psychometric scales. After a period of 3-months, you will be contacted and invited to complete the final cycle of the same standardised psychometric scales. At this time, you may also be invited to complete a one-hour recorded interview with the Chief-investigator. The purpose of this interview will aim to collect your opinions and experiences and what you have found helpful in practice and/or what opinions you may have that would to improve the DBT-skills training and/or the support in place at UHS in the future.

Here is a breakdown of what this means to participate in the study:

PHASE 1:

ALL PARTICIPANTS (intervention and control group):

you will be invited to complete five psychometric scales at the beginning of the study. You will be given the data sheets to record your answers. These data-sheets will have your personal ID code only and collected by the Chief investigator. Your answers will not be identifiable to anyone but the Chief Investigator.

- MUSCEIT- Emotional intelligence scale (Mayers, Solavey and Caruso 2002)
- ELS - Emotional Labour scale (Brotheridge and Lee 2003)

- MBI - Burnout scale (Maslach, Jackson and Leiter 1996)
- DERS - Emotional regulation scale (Gratz & Roemer, 2004)
- CD-RISK – Connor-Davidson Resilience Scale (Connor and Davidson (2003)
- URICA - University of Rhode Island Change Assessment (DiClemente, Carbonari, Zweben, Morrie & Lee (2001)

Intervention group only:

You will then partake in a group of early career midwives in a 2-hour DBT skills training curriculum session at Princess Anne Hospital.

During this first session you will learn about core-mindfulness skills (week1):

- *helping to focus attention, noticing both what is going on within you and what is happening around you whilst staying centred. Developing your ability to feel and see to improve your effectiveness of recognition which is the first step towards mastery.*

The following week you will attend the second 2-hour DBT skill training group focusing on emotion regulation skills (week 2):

- *Understanding and naming emotions helping to identify your own emotions and recognising others emotions. Reducing vulnerability to developing negative emotions and increasing emotional resilience.*

The following week you will attend the second 2-hour DBT skill training group focusing on emotion regulation skills (week 3):

- *Changing emotional responses of painful or unwanted emotions. Managing difficult emotions and extreme emotions. Reducing vulnerability to developing negative emotions and increasing emotional resilience.*

The following week you will attend the third 2-hour DBT skill training group session focusing on interpersonal effectiveness skills (week4):

- *Core interpersonal effectiveness goals to help you deal with conflict situations, get what you want and need, including how to say no without losing your own self-respect and the respect of others (women, colleagues).*

The following week you will attend the fourth and last 2-hour DBT training group session focusing on distress tolerance skills (week 5):

- *Distress tolerance as the ability to tolerate emotionally painful and difficult situations including crisis situations. Reality acceptance skills, tips on how to manage peaks of emotions with distraction methods.*

The following week you will attend the fourth and last 2-hour DBT training group session focusing on distress tolerance skills (week 6):

- *Distress tolerance as the ability to tolerate emotionally painful and difficult situations including crisis situations. Reality acceptance skills, tips on how to manage peaks of emotions with distraction methods.*

During each session you will be able to participate in practice exercises and share opinions and relevant experiences, but it is up to you and only if you feel comfortable. You will be given handouts during each session to help your learning and practice of each skill. These handouts will help you to become aware of these skills between sessions and help you collect experiences during the week before the following scheduled session. Before each session we will review learning and experiences. At the end of the course it is hoped that you be able to use some of these skills as your practice experiences develop but this is up to you. You have the capacity to use your handout to aid progress of these skills.

After the 6-week DBT-Skills Training all participants (intervention and control group):

you will be invited to complete five psychometric scales at the beginning of the study. You will be given the data sheets to record your answers. These datasheets will have your personal ID code only and collected by the Chief investigator. Your answers will not be identifiable to anyone but the Chief Investigator.

After 3-months.

ALL PARTICIPANTS:

We will contact you to repeat the final cycle of the standardised psychometric scales.

PHASE 2:

ALL PARTICIPANTS:

The Chief Investigator may also ask you to arrange an appointment at a location and time of your convenience to complete a one-hour recorded semi-structured interview focusing on strategies that have benefited your practice experiences. If you were in the intervention group additional questions will focus of your experiences of the DBT skills from the training course.

This marks the end of your involvement in this study for both groups.

What are the advantages and possible disadvantages or risks of taking part?

DBT skills training is designed to improve emotional acuity and regulation, interpersonal effectiveness and distress tolerance. These skills may benefit you in your development and practice as a midwife. Whilst we are unable to determine the level of DBT skills acquisition in all four skill-sets you could benefit from, you may find one or more skills that may be more useful than others or it may be that, with time, these skills may have more meaning as your practice experiences develop. Whatever the benefits that you may or may not acquire through your participation in the study, it is hoped that you will, at least, gain awareness of these skills and your participation will enable this pilot to be the first step of this approach in the midwifery profession. You will also be able to help and benefit the development of research evidence for early career midwives in the UK and internationally.

Whilst we do not anticipate any risks to you in taking part in this study, during the course sessions you may remember and reflect on unpleasant practice experiences that you find upsetting. If this does happen, the course facilitator will ensure that you are properly supported and given information that will provide you with long term help and support if you need it. Please discuss this with members of the research team.

What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?

Apart from the personal information found on your consent form (telephone and email contact information) we will ask you your age, if you have dependants or children, if you work part-time or full-time midwife. We will seek to gain data via the standardised psychometric measures at three time-points for the intervention group: pre-intervention (T1), post-intervention (T2) and 3-months post intervention (T3). The repeated psychometric data will help us to assess outcomes of the intervention and if the intervention has been able to effect (improve or not) your results immediately after the DBT-sills training and whether the results are sustained after 3-months of practice. These scores will be compared to the scores of the control group in order to assess differences between the two groups which will help us compare any effects of the intervention.

Your recorded interview will help us gather evidence that the standardised scales do not cover. It is important for us to understand your practice experiences, opinions of the intervention and if DBT skills have helped you in your practice. This will help us to make improvements for further studies and develop research evidence of early career midwives. For the control group it is important for us to consider practice experiences and opinions of the current and established support provisions for midwives and collect your opinions on what strategies you feel would benefit your resilience to workplace adversity.

It is also important for you to know that this study is part of a PhD project and the data acquired in this study will help to inform its thesis.

Will I be recorded, and how will the recorded media be used?

You may be invited to complete a one-hour semi-structured interview that will be recorded via a digital hand-held device or via remote access with the Chief Investigator. The Chief Investigator will manage your personal information and anonymise all the data that will collect from you. The audio recordings will be transferred to into an encrypted password protected computer file and will be transcribed by the Chief Investigator. Your transcribed responses will be given an ID code that only the Chief Investigator will know. The rest of the research team will have access to the anonymised transcription data so you will not be able to be identified.

After the research team has thematically analysed and aggregated your transcribed and anonymised interview data, it is possible that one or more written quotes may be included in the final report and used for the purpose of illustration in conference presentations, lectures and PhD thesis. However,

the quotes will not include any identifying information in which you could be recognised. No other use will be made of them without your written permission. We will send you the final report at your request. Your audio recordings held on the university's secure encrypted server until the Chief Investigator has completed her PhD examination and then securely destroyed.

The DBT trainer will be recorded for the purposes of monitoring the delivery of each session. This is important for the quality and standards of DBT skills training models and to assure that the trainer is conducting the sessions appropriately. The recordings will be reviewed by an expert in DBT training who is a member of the research team. There will be no collection of information from you and no information will be used in any publications and the recordings will be used for quality control of the trainer.

How will my information be managed?

Bournemouth University (BU) is the organisation with overall responsibility for this study and the Data Controller of your personal information, which means that we are responsible for looking after your information and using it appropriately. Research is a task that we perform in the public interest, as part of our core function as a university.

Undertaking this research study involves collecting and/or generating information about you. We manage research data strictly in accordance with:

- Ethical requirements and Current data protection laws.
- These control use of information about identifiable individuals, but do not apply to anonymous research data: "anonymous" means that we have either removed or not collected any pieces of data or links to other data which identify a specific person as the subject or source of a research result.

BU's [Research Participant Privacy Notice](#) sets out more information about how we fulfil our responsibilities as a data controller and about your rights as an individual under the data protection legislation. We ask you to read this Notice so that you can fully understand the basis on which we will process your personal information.

Research data will be used only for the purposes of the study or related uses identified in the Privacy Notice or this Information Sheet. To safeguard your rights in relation to your personal information, we will use the minimum personally-identifiable information possible and control access to that data as described below.

Publication

You will not be able to be identified in any external reports or publications about the research. Your information will only be included in these materials in an anonymous form, i.e. you will not be identifiable.

Research results will be published in peer reviewed journals, conferences, university audits and PhD thesis of the principal researcher. The data of this study will also contribute to larger future studies that include DBT skills training for midwives.

Security and access controls

The BU research team will hold the information we collect about you in hard copy in a secure location at BU and on a BU password protected secure network where held electronically. The research team will comply with the requirements of the Data Protection Act 1998 with regards to the collection, storage, processing and disclosure of personal information and will uphold the Act's core principles. All personal data collected during the course of the study will be either stored electronically on an encrypted, password-protected University computer hard drive or as paper files which will be stored in a locked drawer in a locked office with limited access.

Personal information which has not been anonymised will be accessed and used only by appropriate, authorised individuals and when this is necessary for the purposes of the research or another purpose identified in the Privacy Notice. This may include giving access to BU staff or others responsible for monitoring and/or audit of the study, who need to ensure that the research is complying with applicable regulations.

How we will do this?

Participants consent forms and personal information that we will collect from you (age, telephone numbers and emails addresses) will be scanned, uploaded and filed in a database and stored in a secure pass-word-protected encrypted file on the university server. Each participant will be assigned a unique ID sequence code. This ID code will be used to identify you for all quantitative and qualitative data that we will collect from you. This means that all your responses to psychometric scales and transcripts from audio recording will be identified by your ID code. The ID key (code breaker) will only be known to the Chief Investigator during the study period. This ID key will be filed and stored in a secure password-protected encrypted file on a separate database separately stored in a different location from the rest of the databases that hold your response-data we have collected from you.

Qualitative data from audio files of interviews will be recorded via a digital recording device operated by the chief-investigator and downloaded from the recording device onto a BU secure password protected hard drive and will be allocated your unique participant ID code. The audio files will be securely destroyed at the earliest opportunity after it has been transcribed. The digitalised anonymised transcriptions of your interview will be filed and stored in a secure password-protected encrypted file on the BU server.

The Chief Investigator will act as the data manager during the study. These databases will not be transferred elsewhere. Only the databases containing your anonymised data will be accessible by the core members of the study team. All databases will be made available on written request from the co-sponsor or BU staff for the purposes of auditing but will then have identifiable data removed, so no one will be able to identify you. All research data will be accessible to research monitoring authorities.

Further use of your information

The information collected about you may be used in an anonymised form to support other research projects in the future and access to it in this form will not be restricted. It will not be possible for you to be identified from this data. To enable this use, anonymised data will be added to BU's online

Research Data Repository: this is a central location where data is stored, which is accessible to the public.

Keeping your information if you withdraw from the study

If you withdraw from active participation in the study we will keep information which we have already collected from or about you, if this has on-going relevance or value to the study. This may include your personal identifiable information. As explained above, your legal rights to access, change, delete or move this information are limited as we need to manage your information in specific ways in order for the research to be reliable and accurate. However, if you have concerns about how this will affect you personally, you can raise these with the research team when you withdraw from the study.

You can find out more about your rights in relation to your data and how to raise queries or complaints in our Privacy Notice.

Retention of research data

Project governance documentation, including copies of signed **participant agreements**: we keep this documentation for a long period after completion of the research, so that we have records of how we conducted the research and who took part. The only personal information in this documentation will be your name and signature, and we will not be able to link this to any anonymised research results.

Research results:

As described above, during the course of the study we will anonymise the information we have collected about you as an individual. This means that we will not hold your personal information in identifiable form after we have completed the research activities.

You can find more specific information about retention periods for personal information in our Privacy Notice. We keep anonymised research data indefinitely, so that it can be used for other research as described above.

Contact for further information

If you have any questions or would like further information, please contact the Research Team members below.

Appendix 3. Consent Form (DBT-ST Group)

DBT SKILLS FOR MIDWIVES V1.1 IRAS:279419



Participant Agreement Form (intervention group)

Full title of project:

A Pilot Study to Improve emotional well-being of Early Career Midwives: A Modified DBT Skills Training Group Intervention

Name, position and contact details of researcher:

Jessica Doherty (Chief Investigator)

Jdoherty1@bournemouth.ac.uk

Tel:

Name, position and contact details of supervisor:

Dr Catherine Angell (Primary Supervisor)

Email: Catherine.angell@bournemouth.ac.uk

Dr Sarah Eales (Supervisor)

Email: sarah.eales@bournemouth.ac.uk

Dr Tula Brannelly

Email: pbrannelly@bournemouth.ac.uk

To be completed prior to data collection activity

Section A: Agreement to participate in the study

You should only agree to participate in the study if you agree with all of the statements in this table and accept that participating will involve the listed activities.

I have read and understood the Participant Information Sheet (BUJD20b & Version 1.0) and have been given access to the BU Research Participant Privacy Notice which sets out how we collect and use personal information (https://www1.bournemouth.ac.uk/about/governance/access-information/data-protection-privacy).
I have had an opportunity to ask questions.
I understand that my participation is voluntary. I can stop participating in research activities at any time without giving a reason and I am free to decline to answer any particular question(s).
I agree that BU researchers may process my confidential information as described in the Participant Information Sheet

I understand that taking part in the research will include the following activities as part of the research: <i>Please place a tick in each box that you agree to participate in and place your initials at the end of Section-A below</i>	
☐	Attend a DBT Skills Group Training intervention for 2-hour sessions (once a week for 6 weeks) at Princess Anne Hospital University Southampton Hospital NHS Foundation Trust.
☐	The intervention will take place in a face-to-face and/or via remote access online format depending on Covid-19 pandemic restrictions.
☐	Complete 5 standardised psychometric scales before the training course, after the training course has ended and a final time after three months in follow-up period of Phase 1.
☐	Engage in a one-hour semi-structured interview with the Chief Investigator of Phase 2.
☐	Agree to be audio-recorded during the semi-structured interview of Phase 2.
☐	Complete demographic questionnaire
☐	DBT Skills training sessions will be recorded
I understand that the DBT trainer will be recorded during training sessions for the purposes of quality and adherence to DBT standards of teaching. These recordings will not be used for research outcomes and reviewed by an expert DBT professional.	
I understand that my words may be quoted in publications, reports, and other research outputs without using my real name.	
I understand that, if I withdraw from the study, I will also be able to withdraw my data from further use in the study except where my data has been anonymised (as I cannot be identified) or it will be harmful to the project to have my data removed.	
I understand that my data may be included in an anonymised form within a dataset to be archived at BU's Online Research Data Repository.	
I understand that my data may be used in an anonymised form by the research team to support other research projects in the future, including future publications, reports or presentations.	
	Initial box to agree
I consent to take part in the project on the basis set out above (Section A)	

I confirm my agreement to take part in the project on the basis set out above.

 Name of participant
 (BLOCK CAPITALS)

 Date
 (dd/mm/yyyy)

 Signature

 Name of researcher
 (BLOCK CAPITALS)

 Date
 (dd/mm/yyyy)

 Signature

Once a Participant has signed, **please sign 1 copy** and take 2 photocopies:

- Original kept in the local investigator's file
- 1 copy to be kept by the participant (including a copy of PI Sheet)

Appendix 4. Consent Form (Control Group)



Participant Agreement Form (control group)

Full title of project:

A Pilot Study to Improve emotional well-being of Early Career Midwives: A Modified DBT Skills Training Group Intervention

Name, position and contact details of researcher:

Jessica Doherty (Chief Investigator)

Tel:

jdoherty1@bournemouth.ac.uk

Name, position and contact details of supervisor:

Dr Catherine Angell (Primary Supervisor)

Email: Catherine.angell@bournemouth.ac.uk

Dr Sarah Eales (Supervisor)

Email: sarah.eales@bournemouth.ac.uk

Dr Tula Brannelly

Email: pbrannelly@bournemouth.ac.uk

To be completed prior to data collection activity

Section A: Agreement to participate in the study

You should only agree to participate in the study if you agree with all of the statements in this table and accept that participating will involve the listed activities.

I have read and understood the Participant Information Sheet (BUJD20b & Version 1.0) and have been given access to the BU Research Participant Privacy Notice which sets out how we collect and use personal information (https://www1.bournemouth.ac.uk/about/governance/access-information/data-protection-privacy).

I have had an opportunity to ask questions.

I understand that my participation is voluntary. I can stop participating in research activities at any time without giving a reason and I am free to decline to answer any particular question(s).

I agree that BU researchers may process my confidential information as described in the Participant Information Sheet

I understand that taking part in the research will include the following activities as part of the research: <i>Please place a tick in each box that you agree to participate in and place your initials at the end of Section-A below</i>	
☐	Complete 5 standardised psychometric scales at the beginning of the research study, repeat these measures after 6 weeks and complete a final repeat of these measures after a 3-month period in Phase 1.
☐	Engage in a one-hour semi-structured interview with the Chief Investigator in Phase 2.
☐	Agree to be audio-recorded during the semi-structured interview of Phase 2.
☐	Complete a demographic questionnaire
I understand that my words may be quoted in publications, reports, and other research outputs without using my real name .	
I understand that, if I withdraw from the study, I will also be able to withdraw my data from further use in the study except where my data has been anonymised (as I cannot be identified) or it will be harmful to the project to have my data removed.	
I understand that my data may be included in an anonymised form within a dataset to be archived at BU's Online Research Data Repository.	
I understand that my data may be used in an anonymised form by the research team to support other research projects in the future, including future publications, reports or presentations.	
	Initial box to agree
I consent to take part in the project on the basis set out above (Section A)	

☐

I confirm my agreement to take part in the project on the basis set out above.

_____ Name of participant (BLOCK CAPITALS)	_____ Date (dd/mm/yyyy)	_____ Signature
_____ Name of researcher (BLOCK CAPITALS)	_____ Date (dd/mm/yyyy)	_____ Signature

Once a Participant has signed, **please sign 1 copy** and take 2 photocopies:

- Original kept in the local investigator's file
- 1 copy to be kept by the participant (including a copy of PI Sheet)

Appendix 5. DBT-ST Session Plan

DBT Skills Training Protocol for Midwives

DBT Skills training curriculum and teaching plan with practice and worksheets (Linehan 2015, Linehan 2015a).

Week and Module	DBT Selected Skills	Midwifery examples	Relationships in clinical practice	Aim
WEEK: 1 Introduction to DBT Skills overview Core Mindfulness Skills	Core mindfulness States of mind, wise mind Skills: observe, describe participate What is mindfulness What is mindfulness practice Why mindfulness Core Mindfulness skills The three subsets of mindfulness Wise-Mind Reasonable Mind Emotion Mind WHAT Skill Observe Describe Participate HOW Skill Non-judgmentally One-mindfully Effectively Exercises: Hand in lap Sitting mindfully Practice examples	Labour ward, feeling bullied, lack of control (asked to work flexibly) Ideological midwifery/institutional/medical model. In anxious situations, what does your emotional mind, rational mind and wise mind say?	Family, colleagues, managers, ~~women~~ and their partners – model of	Improve awareness and acceptance
	What Skills: How Skills: non-judgemental, one mind, effectively	How might these skills help us as midwives? Practise examples, role play, homework: practice worksheets; home and work	Notice how others behaviours Notice your emotions and behaviours	Improve awareness and acceptance
WEEK: 2 Emotion Regulation	Understanding, identifying, labelling emotions What do emotions do for you? What makes emotion regulation hard? Model of emotions Function of emotions Observing, describing, naming emotions Pay attention to your emotions and rumination.	What are emotions, how do they influence our thinking and our behaviours? Have our emotions changed in any way since becoming a Midwives? Or since you started working under your own registration Pin? Are any more or less present? Homework: practice worksheets; check your emotions, observing, describing Emotions, what are the triggers?	Notice how others have emotions of sad, fear, happiness, anger. They express them via voice, face expression, body and eye movement. Discuss how we receive their emotion?	Processing emotion

	Interfering Thoughts when Experiencing Emotions Dysfunctional Behaviour when Experiencing Emotions observing, describing Emotions			
WEEK: 3 Emotion Regulation	Changing Emotional responses: Check the <u>facts</u> Opposite Action and Problem Solving Opposite Action Reducing Vulnerability to Emotion-Mind The ABC PLEASE Skills	Use example in practice that has caused stress to illustrate justified and unjustified emotion.	Who was involved, what did they do or not do?	Cognitive Change Managing emotional expression Managing situations that trigger emotions
	Taking Care of your mind by taking care of your body, PLEASE Skills Build mastery and Cope ahead	Use example of <u>night-shifts</u> or on-calls and lack of sleep or fear of doing something wrong or feeling lost in practice illustrate point of emotional vulnerability. Recognising how emotions are connected to your body sensations. Identifying how to manage and care for <u>yourself</u> Homework: practice worksheets; evidence examples and what you did you do to cope?	How can others care? How do we know?	Building emotion resilience; reducing emotional vulnerability
Emotion Regulation	Accumulate positives	Discussion about what we have achieved when we become midwives and how we affect <u>women</u> and their babies lives the time and possibility for usual "positives" change. Group discussion about how we can weave them in again or adapt with a growing knowledge in <u>practice</u> Homework: practice worksheets; evidence examples of positive moments and how it made you feel.	What supports you to have "positive" moments? What do others find positive? Fact that women and their babies need our help and <u>guidance</u> ; the most important time in their lives.	Building emotion resilience; reducing emotional vulnerability
Week: 4 Interpersonal effectiveness People Skills	Clarify priorities and goals in interpersonal <u>situations</u> Factors that interfere with interpersonal effectiveness	Discuss what's changed in terms of interpersonal demands since becoming a midwife. What can you do to manage these factors in your relationships in practice?	Others bring their own lived experiences and personalities and socialise in different ways...role play a challenging exchange	Managing situations that cue emotion
	Objective Effectiveness: • DEAR MAN Skills	Walk through examples; of asking for time-off so you spend Christmas with your family; staff that are not		Managing situations that cue emotion

Appendix 6. Demographic Questionnaire

BDT for Midwives Pilot, v.1.0 IRAS:279419



DEMOGRAPHIC QUESTIONNAIRE:

We need to you a little bit about you and work environment in order to consider any factors that might improve our understanding about you as participant in our study. Your answers are anonymous, so that no one can identify you nor the answers you give. We will use your answers to categorise the results of the standardised measures during the analyses and discussion within the final report. Please complete the questions below and send them the Chief Investigator at jdoherly1@bournemouth.ac.uk. If you have any questions or need any advise to help you complete the questionnaire, so can also call Jess on:

1. Please indicate your gender.

- ☐ Male
- ☐ Female
- ☐ Other

2. Please indicate your age?

3. What is your present employment situation?

- ☐ Full time
- ☐ Part time
- ☐ Maternity leave
- ☐ Bank Midwife
- ☐ Other

If other please state here:.....

4. How many years have you been practicing as a registered midwife?

- ☐ 1 year
- ☐ 2 years
- ☐ 3 years
- ☐ 4 years
- ☐ 5 years

5. What is your current NHS Agenda for Change Banding?

- ☐ Band 5
- ☐ Band 6
- ☐ Band 7
- ☐ Band 8

6. What area of the maternity service do you work in the most?

- ☐ Core Midwife
- ☐ Integrated Midwife
- ☐ Preceptorship Midwife

- ☐ Case-loading Midwife

7. How many extra hours a week on average do you complete above your contracted hours (not including Bank shifts)?

- ☐ 1 extra hour
- ☐ 2 extra hours
- ☐ 3 extra hours
- ☐ Above 3 extra hours

8. How many bank shifts on average to you work?

- ☐ None
- ☐ 1 Bank shift per month
- ☐ 2 Bank shifts per month
- ☐ 3 Bank shifts per month
- ☐ 4 Bank shifts per month
- ☐ More than 5 Bank shift per month

9. Do you complete on-calls?

- ☐ Yes
- ☐ No

If yes, please state how many on average per roster.

10. Do you complete nightshifts?

- ☐ Yes
- ☐ No

If yes, please state how many on average per roster.

Appendix 7. Sample Questionnaire

INTERVIEW SAMPLE SCHEDULE: V.01
ETHICS ID: 29850
DATE: 18/05/2020

SEMI-STRUCTURED INTERVIEW SAMPLE SCHEDULE

INTRODUCTION TO THE INTERVIEW PROCESS:

1. PROVIDE INTERVIEW AIMS AND OBJECTIVES
2. EXPLAIN THE PROCESS OF THE INTERVIEW
3. REITERATE CONFIDENTIALITY THROUGH THE RESEARCH PROCESS, ANALYSIS
4. DATA COLLECTION METHODS: DIGITAL RECORDING, TRANSCRIPTION, ANALYSIS, FINAL REPORT AND DESEMINATION
5. REVIEW RIGHTS OF THE PARTICIPANT TO WITHDRAW, STOP OR SKIP QUESTIONS AT ANY POINT DURING AND AFTER THE INTERVIEW
6. OBTAIN CONSENT TO PROCEED

SAMPLE SEMI-STRUCTURED INTERVIEW QUESTIONS:

SITUATIONAL/PAST HISTORY FOR BOTH GROUPS

1. WHAT HAS BEEN YOUR EXPERIENCES AND CHALLENGES AS A PRACTICING MIDWIFE AND HOW HAVE THESE SITUATIONS EFFECTED YOU? (I.G & C.G)
 - a. HOW DID THEY MAKE YOU FEEL?
 - b. HOW DID YOU COPE?
 - c. WHAT IMPACT DID THEY HAVE ON YOUR PRACTICE?
 - d. WHAT IMPACT DID THEY HAVE ON YOUR RELATIONSHIPS WITH WOMEN?
 - e. WHAT IMPACT DID THEY HAVE ON YOUR RELATIONSHIPS WITH YOUR COLLEAGUES?
 - f. WHAT IMPACT DID THEY HAVE ON YOUR CAREER?
 - g. WHAT IMPACT DID THEY HAVE ON YOUR PERSONAL LIFE?
2. HAVE YOU EVER THOUGHT OF LEAVING THE PROFESSION?
 - a. WHAT MADE YOU STAY IN THE PROFESSION?
3. WHAT STRATEGIES HAVE HELPED YOU COPE WITH THESE EMOTIONAL CHALLENGES IN PRACTICE?
 - a. WITH WOMEN?
 - b. WITH COLLEAGUES?
 - c. WITH YOUR FAMILY?
4. WHAT STRATEGIES CURRENTLY IN PLACE HAVE BEEN HELPFUL?
 - a. WHAT STRATEGIES HAVE NOT BEEN HELPFUL?
 - b. IF YOU COULD CHOOSE ANY STRATEGIES, WHAT WOULD YOU FIND HELPFUL TO IMPROVE YOUR RESILIENCE?

INTERVENTION GROUP ONLY

Applicability

5. HAVE YOU BEEN ABLE TO USE ANY OF THE DBT SKILLS FROM THE INTERVENTION?

INTERVIEW SAMPLE SCHEDULE: V.01

ETHICS ID: 29850

DATE: 18/05/2020

- a. IN PRACTICE?
 - b. IN YOUR PERSONAL LIFE?
 - c. IF NOT THEN WHY?
6. WHICH DBT SKILL OR SKILLS DID YOU FIND THE MOST USEFUL?
 - a. WHY?
7. WHAT DBT SKILL OR SKILLS DID YOU FIND LESS HELPFUL?
8. WHY?
9. DO YOU THINK DBT SKILLS ARE USEFUL FOR EARLY CAREER MIDWIVES?
10. WOULD YOU RECOMMEND OTHER MIDWIVES TO ATTEND A DBT SKILLS TRAINING FOR MIDWIVES IN THE FUTURE?
11. WHO DO YOU THINK WOULD BENEFIT THE MOST FROM DBT SKILLS TRAINING?

Feasibility and acceptability

1. WHAT DID YOU ENJOY ABOUT THE TRAINING SESSIONS?
 - a. WHICH SESSION DID YOU ENJOY THE MOST?
 - b. WHY?
 - c. WHICH SESSION DID YOU ENJOY THE LEAST?
 - d. WHY?
2. WERE YOU ABLE TO COMPLETE THE HOMEWORK BETWEEN SESSIONS?
 - a. IF NOT THEN WHAT COULD BE CHANGED TO HELP YOU?
3. WHAT DO YOU THINK WOULD HELP YOU IMPROVE YOUR LEARNING AND DEVELOPMENT OF THE DBT SKILLS?
4. WHAT, IF ANY, CHANGES WOULD YOU MAKE TO THE DBT SKILLS TRAINING?
 - a. TIME?
 - b. GROUP-SIZE?
 - c. STRUCTURE?
 - d. ACTIVITIES DURING SESSIONS?
 - e. SKILLS?
 - f. HOMEWORK?
 - g. HANDOUTS?
 - h. TRAINERS?
 - i. OTHER CHANGES?

Appendix 8. BU Ethics ID 29850

About Your Checklist	
Ethics ID	29850
Date Created	18/12/2019 15:47:57
Status	Open
Risk	High

Researcher Details	
Name	Jessica Doherty
Faculty	Faculty of Health & Social Sciences
Status	Postgraduate Research (MRes, MPhil, PhD, DProf, EngD, EdD)
Course	Postgraduate Research - HSS
Have you received funding to support this research project?	No
Please list any persons or institutions that you will be conducting joint research with, both internal to BU as well as external collaborators.	Match-funded PhD by Bournemouth University and University Hospital Southampton NHS Trust

Project Details	
Title	A Pilot Study to Improve Emotional Well-being of Early Career Midwives: A Modified DBT Skills Training Group Intervention
Start Date of Project	24/01/2020
End Date of Project	31/10/2021
Proposed Start Date of Data Collection	07/09/2020
Supervisor	Catherine Angell
Summary - no more than 500 words (including detail on background methodology, sample, outcomes, etc.)	
The overall aim of this study is to improve resilience in early career midwives by developing emotional regulation strategies to improve their capacity to manage relationships and the emotional challenges of practice. Additionally, it is to determine whether a Dialectical Behavioural Therapy Skills Training group intervention can modify levels of emotional intelligence, emotional labour, burnout and resilience of early career midwives. Managing emotions of woman and colleagues within the context of a highly pressurised NHS has shown to impact emotional well-being. Midwives in the UK have been identified as having the highest levels of personal and work-related burnout with early career midwives (ECM) found to be at particular risk to workplace adversity. For ECM, managing their relationships with colleagues and women in their care whilst gaining confidence, developing their competencies and managing the theory to practice gap can further increase their vulnerability to the costs of caring in their professional relationships. Dialectical Behavioural Therapy skills training (DBT) is an evidence-based manualised program that has been identified by its founder as a trans-diagnostic treatment that enables emotional regulation across a variety of emotional needs in clinical and non-clinical populations (Linehan 2015). There is now a growing interest in applying DBT skills training for non-clinical populations and innovations are	

developing across the globe (school children, adolescents, nursing students). DBT skills include four modules; 1) core mindfulness, 2) emotion regulation skills, 3) distress tolerance, 4) interpersonal effectiveness, all of which have been considered as life skills that promote resilience. A modified DBT skills training will be applied and delivered in accordance with the DBT Skills Training Manual (Linehan, 2015). Supported by DBT experts, a modified schedule will comprise of 6 weekly sessions in order to address feasibility and facilitation of student participation and training schedules.

This is a pilot study as it is exploring the efficacy, feasibility, acceptability and applicability of a modified DBT Skills training intervention to increase emotional intelligence, emotional regulation and resilience in ECMs. The study will apply a non-randomised mixed-methods explanatory sequential design. Phase-1 will be a quasi-experimental process of pre/post-test measurements of participants to assess the intervention compared to control. Phase-2 will be repeat measures after 3-months to assess the effectiveness of the intervention in practice. The follow-up will then proceed to semi-structured interviews of participants to gather acceptability and feasibility of the intervention and applicability of its skill-sets for the intervention-arm and to explore what strategies are relevant to the experience of emotional demands in practice in both arms.

This study will be overt and there will be no deceptions. The intervention is aimed to aid positive psychological development. All participants are considered fit and are currently practicing as midwives in the NHS. The intervention will be supervised by qualified experts in DBT with between-sessions supervision of the DBT facilitator. Only anonymised data results will be used in final reports, journals, conference presentations and PhD thesis.

Filter Question: Does your study involve Human Participants?

Participants	
Describe the number of participants and specify any inclusion/exclusion criteria to be used	
A purposive sampling of approximately 30 to 40 participants (15 to 20 participants per arm) from a cohort of preceptors within their supernumerary period will be eligible to enrol in the study and supported by stakeholders at UHS. As yearly preceptorship cohorts are approximately composed of 12 members and some may decide not to participate in the study. Therefore other members of the early career midwives cohort will also be eligible for recruitment up to the sample size required, however, they will do so out of practice hours. Due to the cohort sizes and following the stakeholders requirements the control group will be recruited in an earlier cohort with the same approach as the intervention group. The inclusion criteria will be; NMC registered midwives with 0 to 5 years experience contracted to the UHS maternity service and who are fit for practice. Exclusion criteria will be; registered midwives that have more than 5 years experience. midwives that are on sick-leave.	
Do your participants include minors (under 16)?	No
Are your participants considered adults who are competent to give consent but considered vulnerable?	No
Is a Disclosure and Barring Service (DBS) check required for the research activity?	No
Recruitment	
Please provide details on intended recruitment methods, include copies of any advertisements.	
Participants will be recruited within two separate cohorts of preceptor midwives and the wider staff of early career midwives. Participants will be recruited during their supernumerary period and induction meetings via in-vivo presentation and electronic flyer and work email. Email of the study will be sent out to the targeted populations and an announcement will be sent via the electronic theme of the week their electronic system (StaffNet). Respondents will be invited to the selection process in view of participating in the study. The selection process will be based on their career stage (0-5 years experience) only. These candidates will be given the participant information form to read and invited to clarify any questions they may have to aid informed choice and decision. After this process and reflection period they will be given the agreement form to sign should they chose to participate. The Chief Investigator will complete all processes in the recruitment	
Do you need a Gatekeeper to access your participants?	No
Data Collection Activity	
Will the research involve questionnaire/online survey? If yes, don't forget to attach a copy of the questionnaire/survey or sample of questions.	No
Will the research involve interviews? If Yes, don't forget to attach a copy of the interview questions or sample of questions	Yes

Please provide details e.g. where will the interviews take place. Will you be conducting the interviews or someone else?	
After 3 months and as part of phase 2, participants of both arms will be interviewed. Semi-structured interviews will take place and be undertaken at the convenience of each participant by the Chief Investigator. After review ethical rights and procedures during and after the interview in accordance with the participants approval, informed consent will be gained. The interview will take approximately one hour and recorded via a digital encrypted device operated by the chief investigator. The focus of the interview will be on the participants emotional experiences of practicing as an early career midwife and what strategies they consider important (in both groups). What (if any) DBT skills awareness/learned during the intervention has aided, developed and/or maintained during the 3 months of practice, what was helpful and what strategies would improve their learning process relevant to the intervention or in practice generally (intervention group only).	
Will the research involve a focus group? If yes, don't forget to attach a copy of the focus group questions or sample of questions.	No
Will the research involve the collection of audio materials?	Yes
Will your research involve the collection of photographic materials?	No
Will your research involve the collection of video materials/film?	No
Will any audio recordings (or non-anonymised transcript), photographs, video recordings or film be used in any outputs or otherwise made publicly available?	No
Will the study involve discussions of sensitive topics (e.g. sexual activity, drug use, criminal activity)?	No
Will any drugs, placebos or other substances (e.g. food substances, vitamins) be administered to the participants?	No
Will the study involve invasive, intrusive or potential harmful procedures of any kind?	No
Could your research induce psychological stress or anxiety, cause harm or have negative consequences for the participants or researchers (beyond the risks encountered in normal life)?	No
Will your research involve prolonged or repetitive testing?	No

Consent	
Describe the process that you will be using to obtain valid consent for participation in the research activities. If consent is not to be obtained explain why.	
Full disclosure of the study elements and intentions will be given to potential participants prior to gaining their consent. Students will be invited to sign the consent form once the C.I. has ensured they have made an informed choice. This will be facilitated by ensuring that students and C.I. have explored with the potential participants the potential benefits and risks. Full disclosure of data management and confidentiality measures taken by the C.I. to ensure their protection. The C.I. will also ensure that potential participants have conferred with others to ensure that there have been no elements of coercion to take part in the study. A statement of consent will be taken and stored as a separate file prior to the intervention date and first cycle of the measures involved in the study. Participants who have requested the results of the study and given consent to be contacted will be sent a participants' report following the conclusion of the study	
Do your participants include adults who lack/may lack capacity to give consent (at any point in the study)?	No
Will it be necessary for participants to take part in your study without their knowledge and consent?	No

Participant Withdrawal	
At what point and how will it be possible for participants to exercise their rights to withdraw from the study?	Participants will be informed of their right to withdraw at any point until the publication of the study by contacting one of the members of the research team. This statement is included in the participant agreement form.
If a participant withdraws from the study, what will be done with their data?	Any participant who decides to withdrawal from the study before any data collection can do so without impacting on the research project. However, if data has already been collected, anonymised and the analytical process has been engaged then although we

	will not collect any further information, we will not be able to extrapolate their anonymised data already processed. This is especially problematic for psychometric numeric data forming data-sets. If the withdrawal is before interviews have been transcribed and analysed, then we will remove the data according to the participants wishes. However, if the withdrawal is after transcription and analysis has begun the removal may impact the integrity of the research. The primary Chief Investigator will contact her supervisors and chief data officer for guidance depending on when a withdrawal occurs within the study period in order to insure withdrawal rights are preserved.

Participant Compensation	
Will participants receive financial compensation (or course credits) for their participation?	No
Will financial or other inducements (other than reasonable expenses) be offered to participants?	No

Research Data	
Will identifiable personal information be collected, i.e. at an individualised level in a form that identifies or could enable identification of the participant?	Yes
Please give details of the types of information to be collected, e.g. personal characteristics, education, work role, opinions or experiences	
The study will include collection of audio recordings from interviews of opinions and experiences of participants in both arms focusing on work experiences and applicability of DBT skills, acceptability and feasibility of the intervention and evaluation of current strategies available or desirable to support well-being. standardised Psychometric measures will include numerical and multiple-choice questions on emotions intelligence, emotional labour, difficulties of emotional regulation, burnout and resilience. all standardised measures are aimed to collect and quantify emotional characteristics of participants. this data will be anonymised and analysed to assess the efficacy of the intervention. Although there may be quotes from interviews in the final report, these will not have any identifiable data susceptible to be traced back to a particular participant.	
Will the personal data collected include any special category data, or any information about actual or alleged criminal activity or criminal convictions which are not already in the public domain?	No
Will the information be anonymised/de-identified at any stage during the study?	Yes
Will research outputs include any identifiable personal information i.e. data at an individualised level in a form which identifies or could enable identification of the individual?	No

Storage, Access and Disposal of Research Data	
During the study, what data relating to the participants will be stored and where?	All personal data collected during the study will be either stored electronically on a BU secure platform (H drive) encrypted, password-protected BU computer hard drive. Paper forms will be stored in a locked drawer in a locked office with limited access for audit purposes. Identifiable information about participants such as contact details will be stored separately on BU secure password-protected encrypted server. Participants consent forms will be allocated a unique participant ID sequence code. The ID key will be filed and stored in a secure password-protected encrypted file on BU server but in a separate location from other databases of the study. Quantitative database of anonymised standardised measures identified by participant ID codes will be scanned to digital file and Qualitative database of interview anonymised transcripts will be stored on a secured hard drive on the same H-drive BU server. Digital recordings will be destroyed at the earliest opportunity.
How long will the data relating to participants be stored?	Audio files will be destroyed at the earliest opportunity after transcription and anonymisation. All anonymised data and data relating to identifiable information of participants (agreement form, contact details), will be stored and retained for 5 years after the award of the degree (PhD).
During the study, who will have access to the data relating to participants?	These databases will be accessible by the Chief Investigator and her supervisory team. The Chief Investigator will be the custodian of the data that is personally identifiable;

	audio-recordings for the purpose of transcription, emailed psychometric responses collected from Phase 1 and 2 and participant agreement forms, ID key codes and personal identifiable information. The Chief Investigator will insure the anonymisation of the data. Once anonymisation of the data from measures and interviews have been completed, members of the supervisory team will have access to them for the purpose of review and monitoring only. However, for the purpose of monitoring and audits all data will be accessible to the required BU staff including regulatory authorities during and after the study period. UHS NHS Trust as co-funder will have access to this data for audit purposes according to their policies.
After the study has finished, what data relating to participants will be stored and where? Please indicate whether data will be retained in identifiable form.	The study data comprising from databases of quantitative data-sets and analyses (repeated measures) stored in anonymised format and qualitative data from anonymised interview transcripts and their analyses stored in anonymised format will be transferred to Bournemouth University repository and stored securely in an anonymised format. No personal identifiable information will inform the final report, PhD thesis nor presentations. Any quotes from interviews can be used but any identifiable information to the participants will be removed.
After the study has finished, how long will data relating to participants be stored?	Only anonymised data will be retained for the purpose of analysis and review; anonymised interview transcripts and anonymised repeated measure responses. personal identifiable information will be destroyed at the earliest opportunity. All anonymised data will be stored for no less than 5 years after the PhD examination.
After the study has finished, who will have access to the data relating to participants?	After the study has finished data-sets and databases will be accessible by the Chief Investigator and the 2 members of her supervisory team and on request by required individuals nominated by the co-sponsor and/or regulatory authorities for monitoring and audit purposes. The Chief investigator who will be responsible for anonymisation of all data collected from participants will have access up until the end of the PhD examination. The identifiable data can be monitored by the sponsors and regulatory authorities for governance purposes until they are securely destroyed (as soon as they are no longer required). No transcription services will be required. The output will be subject to supervision, peer review, journal publication, conference presentations and PhD thesis. The anonymised data it will also inform future studies and will be accessible by the public via the sponsor's data repository BORDaR.
Will any identifiable participant data be transferred outside of the European Economic Area (EEA)?	No
How and when will the data relating to participants be deleted/destroyed?	The deletion of participant data will be decided upon once the research team (Chief Investigator and her supervisory team) have conferred and agreed in accordance with the sponsors governance policy. Audio recordings collected on encrypted digital recorder and emails of participants repeated measure responses will be deleted as soon as they are no longer required. All personal identifiable information will be destroyed at the earliest opportunity but no later than the end of the PhD examination and according to the researcher's faculty policy. BU IT department will be given notice to securely destroy personal identifiable data files held on BU server and the Chief Investigator will insure that paper formats are correctly disposed of in confidential waste at BU.
Once your project completes, will any anonymised research data be stored on BU's Online Research Data Repository "BORDaR"?	Yes

Dissemination Plans
How do you intend to report and disseminate the results of the study?
Peer reviewed journals, Internal Report, Conference presentation, Other
If Other, please provide details.
PhD thesis

Will you inform participants of the results?	Yes
If Yes or No, please give details of how you will inform participants or justify if not doing so	
Participants who have requested the results of the study and given consent to be contacted will be sent a participants' report following the conclusion of the study and the compilation of the final study report.	

Final Review	
Are there any other ethical considerations relating to your project which have not been covered above?	No

Risk Assessment	
Have you undertaken an appropriate Risk Assessment?	Yes

Filter Question: Does your study require HRA Approval and/or NHS Research Ethics Committee Approvals? HRA Approval Only

Sponsorship	
Do you need to apply for Bournemouth University Sponsorship?	Yes

Attached documents	
PI Sheet Pilot study JD.docx - attached on 02/06/2020 13:07:51	
Participant Agreement Form I.G.JD.docx - attached on 02/06/2020 13:07:57	
Participant Agreement Form Control JD.docx - attached on 02/06/2020 13:08:01	
SAMPLE INTERVIEW QUESTIONS.docx - attached on 02/06/2020 13:08:05	

Appendix 9. Risk Assessment

BU Bournemouth University Risk Assessment Form

About You & Your Assessment

Name Jessica Doherty
 Email jdoherly1@bournemouth.ac.uk
 Your Faculty/Professional Service Faculty of Health & Social Sciences
 Is Your Risk Assessment in relation to Travel or Fieldwork? Yes
 Does your activity require Campus Access during the COVID-19 Restrictions? Yes
 Status Approved
 Date of Assessment 09/07/2020
 Date of the Activity/Event/Travel that you are Assessing 11/01/2021

What, Who & Where

Describe the activity/area/process to be assessed Pilot Research Study: Mixed Methods Sequential Explanatory design to test a psychological intervention with NHS staff participants. This study will include psychological repeated standardised measures in the first phase and semi-structured interviews process to assess the effectiveness, feasibility, acceptability and applicability to the staff and the practice setting in the second phase. Activity: 1) complete 5 standardised psychometric measures repeated 2 to 3 times 2) attend a 2-hour weekly session for 6 weeks of DBT Skill training for participants. 3) complete a 1-hour semi-structured interview Area: 1) NHS staff participants in a hospital setting Process to be assessed: Emotional risk to participants during the study

Locations for which the assessment is applicable NHS hospital based maternity services

Persons who may be harmed Other - NHS Employed Midwives

Hazard & Risk

Hazard Burden

Severity of the hazard Low

How Likely the hazard could cause harm Low

Risk Rating Low

Control Measure(s) for Burden:

2.0 BURDEN: 2.1 Repeated measures: Completing and repeating five separate standardised measure three times for the intervention arm and twice for the control arm. • The research team have selected to most appropriate standardised measures. As a pilot study it has been identified that each measure will benefit the assessment of the effectiveness of the study and help build research data for early career midwives. it is hoped that the period of three months will alleviate some of this burden. Participants will have been aware of the repeated measures in the PIS. 2.2 Time and availability: There may be potential inconveniences for rostered staff to organise time to complete the repeated measures and interviews. • The Chief investigator will insure that enough time has been given to each participant wishing to participate in the study to have enough time to arrange or rearrange their roster commitments where possible and in the limits of the research design. • The Chief investigator will ensure that any procedure that can be accommodated to participant's availability will be as flexible as possible in order to reduce any inconvenience.

With your control measure(s) in place - if the hazard were to cause harm, how severe would it be? Low

With your control measure(s) in place - how likely is it that the hazard could cause harm? Low

The residual risk rating is calculated as: Low

Hazard Emotional Distress

Severity of the hazard Low

How Likely the hazard could cause harm Medium

Risk Rating Low

Control Measure(s) for Emotional Distress:

1) Participant who appears distressed or requests support will prompt a discreet discussion in order to assess the presenting problem. 2) This process will maintain anonymity and confidentiality where possible. 3) Dependent of the level of emotional distress: a. Signpost or refer to appropriate medical and/or psychological support (GP, IAPT, Hospital-based Psychiatric team). b. inform midwifery operational coordinator, on call professional midwifery advocate c. inform the participants named Professional Midwifery Advocate to monitor wellbeing. 4) If the distress involves a risk of harm to self or others, immediate action will be taken by the Chief Investigator; a. inform on call midwifery operational coordinator b. hospital security team (where necessary) c. on call professional midwifery advocate d. urgent referral to on-call hospital-based psychiatric team for assessment e. maintain support until support professionals enables hand-over of care. 5) Inform the university supervisory team and hospital based clinical supervisor to obtain guidance/support. 6) Log incident as a Serious Adverse Event (SAE) and complete the relevant hospital recording (Adverse Event Report system) procedures and communications, complete a safety reporting form and add it to the participant records and research notes (transferred BUTransfer and EDGE). 7) Inform university supervisory team. 1.0 RISK: 1.1 Emotional distress: As the DBT Skills Training curriculum is essentially focused on emotional events in order to teach and improve emotional coping skills, there is the possibility of triggering emotive memories (good or bad) which may cause distress in individual participants. The course instructor and/or the Chief investigator who are qualified and/or have received training in mental health will be the first to respond to any distress observed in participants. The following list will be implemented according to hospital, university and professional guideline, respecting anonymity and confidentiality where

appropriate: 1) Participant who appears distressed or requests support will prompt a discreet discussion in order to assess the presenting problem. 2) This process will maintain anonymity and confidentiality where possible. 3) Dependent of the level of emotional distress: a. Signpost or refer to appropriate medical and/or psychological support (GP, IAPT, Hospital-based Psychiatric team). b. inform midwifery operational coordinator, on call professional midwifery advocate c. inform the participants named Professional Midwifery Advocate to monitor wellbeing. 4) If the distress involves a risk of harm to self or others, immediate action will be taken by the Chief Investigator; a. inform on call midwifery operational coordinator b. hospital security team (where necessary) c. on call professional midwifery advocate d. urgent referral to on-call hospital-based psychiatric team for assessment e. maintain support until support professionals enables hand-over of care. 5) Inform the university supervisory team and hospital based clinical supervisor to obtain guidance/support. 6) Log incident as a Serious Adverse Event (SAE) and complete the relevant hospital recording (Adverse Event Report system) procedures and communications, complete a safety reporting form and add it to the participant records and research notes (transferred BUTransfer and EDGE). 7) Inform university supervisory team. 1.2 Confidentiality: There is also the possibility that some participants will freely share experiences during the training intervention discussions and/or skill learning process and/or during the interviews where breaches of confidentiality can occur. • During the intervention and integrated to each session-plan: 1) At the start of the session reiteration of the rules of ethical codes of conduct and the limits of confidentiality to the group. 2) At the end of each session will include debrief time. • During the interviews: 1) At the beginning of the interview the Chief Investigator will reiterate confidentiality limitations. 2) The Chief Investigator will inform the participant their ability to stop or skip any question. However, in the event that the participant becomes distressed the following steps will be considered: 3) Should emotional distress, confidentiality or reportable practice be disclosed the follow procedures outlined in section 1.1 and 1.2 as appropriate. 1.3 Reportable practice: Disclosure of unsafe practice, misconduct and/or bullying will incur the following actions maintaining confidentiality and anonymity within the limits of the Chief Investigator's professional code of practice: 1) Discuss with Professional Midwifery Advocate, clinical supervisor and university supervisory team for guidance. 2) Follow procedures in section 1.1 as appropriate. 1.4 Personal Injury: There is low potential risk of injury during the intervention or interviews. To participants and/or course facilitator: • All participants, the DBT course facilitator and the Chief Investigator are contracted NHS staff covered by the Health and Safety at Work Act (1974). In the events that injury should occur: 1) Follow procedures in section 1.1 as necessary To the researcher: • The Chief Investigator will have a research passport including an honorary contract at UHS and covered by the Health and Safety at Work Act (1974). In the events that injury should occur: 1) Follow procedures in section 1.1 as necessary. 2.0 BURDEN: 2.1 Repeated measures: Completing and repeating five separate standardised measure three times for the intervention arm and twice for the control arm. • The research team have selected to most appropriate standardised measures. As a pilot study it has been identified that each measure will benefit the assessment of the effectiveness of the study and help build research data for early career midwives. it is hoped that the period of three months will alleviate some of this burden. Participants will have been aware of the repeated measures in the PIS. 2.2 Time and availability: There may be potential inconveniences for rostered staff to organise time to complete the repeated measures and interviews. • The Chief investigator will insure that enough time has been given to each participant wishing to participate in the study to have enough time to arrange or rearrange their roster commitments where possible and in the limits of the research design. • The Chief

investigator will ensure that any procedure that can be accommodated to participant's availability will be as flexible as possible in order to reduce any inconvenience.
With your control measure(s) in place - if the hazard were to cause harm, how severe would it be? Low
With your control measure(s) in place - how likely is it that the hazard could cause harm? Low
The residual risk rating is calculated as: Low

Review & Approval

Any notes or further information you wish to add about the assessment

Names of persons who have contributed

Approver Name	Suzy Wignall
Approver Job Title	Clinical Governance Adviser
Approver Email	swignall@bournemouth.ac.uk
Review Date	

Uploaded documents
No document uploaded

Appendix 10. Data Management Plan

Protocol V1.0 - 279419
DBT for Midwives
13/07/2020

DATA MANAGEMENT PLAN

TITLE: A Pilot Study to Improve emotional well-being of Early Career Midwives: A Modified Dialectical Behavioural Therapy Skills Training Group Intervention.

This is a management plan developed to comply with sponsor's and United Kingdom policies governing the management of research data. All personal information collected during the course of the study will be kept strictly confidential and in accordance with General Data Protection Regulation (GDPR) and the UK Data Protection Act 2018 that governs the processing of personal data. Participant's rights to access, change or move information are limited to ensure the reliability and accuracy of the information. This information is included in the participant information sheet.

DATA HANDLING:

De-identification:

Participant Identifiable Number (PIN)

Each Participant who has consented to taking part in this study will be given a numerical sequenced code created by the Chief Investigator. The PIN will be applied to all quantitative data collected in this study. Qualitative data will be issued these PIN during the transcription process by the Chief Investigator. The Chief Investigator will create an Excel sheet linking the PIN for each participant.

Codebreaker:

The PIN key (code-breaker) will be created on an Excel spreadsheet by the Chief Investigator, and filed and stored on the sponsor's secure password-protected encrypted server with restricted access and stored separately from the study's databases.

DATA TRANSFER:

All data collected at the research site by the Chief Investigator will be transferred to the sponsor's site (university), via EDGE or collected directly on the sponsor's secure server via a university issued computerised device. EDGE is a secure and fully auditable system that is subscribed to by the Sponsor and NHS Trusts within Wessex. Participant confidentiality and data management will be ensured by the use of the EDGE system. All transferred research data will remain on EDGE for the duration of the study and can serve as evidence forming the research audit trail.

In accordance with GDPR, a member of the university supervisory team will be given access to the study record on EDGE in order to verify that the data (consent-forms) uploaded are true copies. After being considered as 'verified copies', the Chief Investigator will be able to safely dispose of the relevant hard data collected on site in accordance with their confidential waste policy. This will reduce the risk of transporting the hard data via personal transport back to the sponsor site and reduce sponsor site storage necessities.

Demographic data:

No use of personally identifiable information will inform any publication or presentation in this study. Demographic data and telephone numbers, mailing addresses, and email addresses will be collected by the Chief Investigator via the site's NHS remote access system or via the Chief Investigator's NHS.net account (Emails). These will be uploaded to EDGE and downloaded to the sponsor's secure server. The data contained in these emails will be collated into a single Excel spreadsheet and stored in a separate location on the sponsor's secure server.

Emails Correspondence:

Any email correspondences between prospective participants or consented participants and the Chief Investigator will be completed via nhs.net accounts. The emails will be uploaded to EDGE and downloaded to the sponsor's secure server and filed appropriately (communications file). The emails and their personal identifiable content will be stored in a separate file in a difference location on the sponsor's secure server and will remain on the EDGE system.

CONSENT FORMS:

Paper signed consent forms will be co-signed by the Chief Investigator as the person who has received the consent from the participants. The Chief Investigator will then scan and upload the signed consent forms to EDGE. A university member of the supervisory team will check that the forms are a true copy. Once the forms have been found to be verified copies, the paper consent form will be disposed of according to the site's confidential waste policy.

Data Management:

Digital verified copies of consent forms will be downloaded from EDGE to the sponsor's secure server and collated in a master file by the Chief Investigator. This master file will be held in a separate location of the sponsor's server with strict access to the Chief Investigator and only available to be viewed by the university supervisory team or sponsor's research governance staff for monitoring purposes only.

STANDARDISED MESEASURES DATA-SHEETS

1. Emotional Labour Scale (ELS) (Brotheridge and Lee 2003)
2. Emotional Intelligence Scale (MSCEIT) (Mayer et al. 2003)
3. Maslach Burnout Inventory (MBI) (Maslach et al. 1996)
4. The Resilience at Work scale (RAW) (Winwood et al. 2013)
5. Difficulties of Emotional Regulation scale (DERS) (Gratz and Roemer 2004)

Pre-formulated [data-sheets](#) for MSCEIT, RAW, ELS, DERS and MBI with allocated a unique PIN prepared by the Chief Investigator will be distributed to the corresponding participants to complete (numerically answered). The repeated standardised measures will be distributed to participants in paper formats or on Excel digital sheets ([data-sheets](#)).

Transfer to sponsor:

Completed quantitative [data-sheets](#) will be scanned and uploaded from the research site to EDGE. The digital copies transferred via EDGE will then be verified by a member from the university supervisory team and the paper copies can then be destroyed.

Data management:

Once returned to sponsor site the Chief Investigator will download the [data-sheets](#) to the sponsor's secure encrypted, password protected server from the EDGE system. The Chief Investigator will then create a new quantitative database and proceed to tabulation of the datasheets in preparation for analyses using SPSS (Statistical Package for the Social Science) (v25.0) with the university's named statistician and oversight from the supervisory research team members.

SEMI-STRUCTURED INTERVIEW:

1. Face-to-face Interviews:

Face-to-face semi-structured interviews will be recorded via a digital recording device operated by the Chief Investigator. The recording device will be sponsor issued.

2. Remote distance Interviews:

Remote distance interviews via the site's remote access server will be conducted by the Chief Investigator and recorded on the site issued laptop. The recorded file will be uploaded to EDGE by the Chief Investigator and downloaded to the sponsor's secure server as a digital file.

Transfer to sponsor:

Audio files or remotely recorded audio files of interviews recorded directly onto the university server via the Chief Investigator's university encrypted secure account. No transport will be needed thereby reducing to risk of breaching data protection through loss or theft of device holding sensitive information. The audio recording will be deleted from the university encrypted server after the Chief Investigator's final viva voce examination.

Data management:

The digital audio files will form a database with restricted password protected access with a unique login address which will ensure that access is restricted to the Chief Investigator. The Chief Investigator will complete transcriptions of the interviews. Each transcribed interview will be allocated the corresponding participant PIN issued by the Chief Investigator to ensure that the transcriptions are fully anonymised before analysis has begun. However, the university supervisory team may request access [in order to](#) verify the accuracy of the transcriptions. The transcriptions may also be requested at the final viva voce by examiners.

Analysis will be completed via NVivo software available from the sponsor. The analysis will be supported by the university's supervisory team members as per Braun and Clarke (2006) 6 step thematic analysis protocol. The anonymised transcription data will form a part of the metadata of this research study. During the study period all databases and research files pertaining to this study will not be transferred from the sponsor. They will be accessible only by the Chief Investigator. [With the exception of](#) the university's supervisory team and research governance team for verification of true copies and monitoring purposes.

DATA STORAGE:

Identifiable Data:

The digital consent forms will be filed will be stored in a master file located on the sponsor's secure server's hard-drive held in a separate location from the research databases. The master file will only be accessible by the Chief Investigator and by written request by the sponsor for monitoring authenticity and audit purposes as required.

The PIN Key (code-breaker) stored in a separate location from the study's databases on the sponsor's secure server. This file will not be held on EDGE as it will be created at the sponsor's site. This Excel file will not be transferred elsewhere and will continue to be stored by the sponsor until such a time when it can be destroyed securely. Access to this file will be password protected with a unique login to ensure that access is restricted to the Chief Investigator. However, for monitoring purposes a written request will be required.

Email correspondence files will be stored on the sponsor's secure server in the same manner as the other transferred data collection to the sponsor. The transferred emails will remain on EDGE which can serve as evidence forming the research audit trail.

The audio files will be stored and remain on the sponsor's secure server and will not be transferred elsewhere during the study period. However, these audio files can be destroyed after the Chief Investigator has completed the final viva voce examination of the Thesis.

Data management and storage:

The remaining personal identifiable data, the PIN Key and digital consent forms, demographic data and email correspondences along with the anonymised research databases that form the outcome of this study must be held for a period of 5 years after the degree award has been issued. During this time the data and metadata will be transferred to the sponsor's research repository with restricted access. After the five years have elapsed the personal identifiable data files will be destroyed and the remaining anonymised files will be made available to the public via the sponsor's research repository (bordar.bournemouth.ac.uk).

The research databases will be made available on request to the site (co-funder) for the purposes of auditing but will have sensitive data removed beforehand.

Disposal of data:

The Chief Investigator or the university supervisory team will send a written request to the university IT department to request permanent deletion from the server. A return email will confirm the completion of this task.

Data storage post research:

All data which will be uploaded and transfer via EDGE will remain on EDGE until the data transferred has been able to be verified by the sponsor. The data stored on EDGE can then be deleted once it is no longer required. This will be completed by a system admin (Clinical Governance Advisor/Research Governance Advisor, BU Research Development & Support department).

The Chief Investigator will be the custodian of the research data during the study period and extending to the PhD award period. Once the Chief Investigator has completed the final Viva-Voce, the digital audio files from the semi-structured interviews will be destroyed.

All databases for this research study will remain on EDGE system and the sponsor's secure server. These databases will not be transferred elsewhere and will be only accessible by the Chief Investigator and the Bournemouth University supervisory team and regulatory authorities (REC) and BU research governance for monitoring and audits and inspection purposes. Databases pertinent to the study will be made available on request to the sponsor by the site (co-funder) and for the purposes of monitoring, ~~auditing~~ and inspections, however, this will then have sensitive data such as telephone number, email contact removed. The co-funder will store the data on secure servers according to their protocols and research data policy.

Storage long-term:

After the Chief Investigator has concluded the studentship, the Sponsor will transfer the research data files to the university's research repository ~~BORDaR~~ where it will be retained for 5 years after the PhD has been awarded. The co-funder will store the anonymised databases of the study for a minimum of 5 years after the end of the study as per the sponsor's archiving standard operating procedure.]

The sponsor will ensure the study and anonymised research data will be stored and accessible to the public via the university's research data repository.

Publication of direct quotes:

Publication of direct quote will only be in used in an anonymised format; PIN code or pseudonym for the purpose of readability in the final report. The final report and the PhD Thesis will not contain any identifiable information that could potentially be linked back to individual participants. Participants who have consented to be contacted will receive a copy of the final report.

- Braun, V. and Clarke, V., 2006. Using thematic analysis in psychology, 77.
Brotheridge, C. M. and Lee, R. T., 2003. Development and validation of the Emotional Labour Scale. *Journal of Occupational & Organizational Psychology*, 76 (3), 365-379.
Gratz, K. L. and Roemer, L., 2004. Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in

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- Mayer, J. D., Salovey, P., Caruso, D. R. and Sitarenios, G., 2003. Measuring Emotional Intelligence With the MSCEIT V2.0. *Emotion*, 3 (1), 97-105.
- Winwood, P. C., Colon, R. and McEwen, K., 2013. A Practical Measure of Workplace Resilience Developing the Resilience at Work Scale. *Journal of Occupational and Environmental Medicine*, 55 (10), 1205-1212.

Appendix 11. HRA and Health and Care Research Wales (HCRW)

Approval Letter



Ymchwil Iechyd
a Gofal Cymru
Health and Care
Research Wales



Mrs Jessica M Doherty
PhD student
Bournemouth University
Bournemouth University, Faculty of Health and Social
Sciences, Royal London House
Christchurch Road
Bournemouth, Dorset
BH1 3LT

Email: approvals@hra.nhs.uk
HCRW.approvals@wales.nhs.uk

07 January 2021

Dear Mrs Doherty

HRA and Health and Care
Research Wales (HCRW)
Approval Letter

Study title:	A Pilot Study to Improve Emotional Well-being of Early Career Midwives: A Modified DBT Skills Training Group Intervention
IRAS project ID:	279419
REC reference:	20/HRA/5995
Sponsor	Bournemouth University

I am pleased to confirm that [HRA and Health and Care Research Wales \(HCRW\) Approval](#) has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

Please now work with participating NHS organisations to confirm capacity and capability, [in line with the instructions provided in the "Information to support study set up" section towards the end of this letter.](#)

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?

HRA and HCRW Approval does not apply to NHS/HSC organisations within Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report

(including this letter) have been sent to the coordinating centre of each participating nation. The relevant national coordinating function/s will contact you as appropriate.

Please see [IRAS Help](#) for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?

HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to [obtain local agreement](#) in accordance with their procedures.

What are my notification responsibilities during the study?

The "[After HRA Approval – guidance for sponsors and investigators](#)" document on the HRA website gives detailed guidance on reporting expectations for studies with HRA and HCRW Approval, including:

- Registration of Research
- Notifying amendments
- Notifying the end of the study

The [HRA website](#) also provides guidance on these topics and is updated in the light of changes in reporting expectations or procedures.

Who should I contact for further information?

Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is **279419**. Please quote this on all correspondence.

Yours sincerely,
Natasha Bridgeman

Approvals Specialist

Email: approvals@hra.nhs.uk

Copy to: *Mrs Julie Northam*

List of Documents

The final document set assessed and approved by HRA and HCRW Approval is listed below.

Document	Version	Date
Copies of materials calling attention of potential participants to the research [Recruitment Flyer]	1.0 08/10/20	08 October 2020
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Prof Indemnity 2020-21]		01 August 2020
Interview schedules or topic guides for participants [Interview Schedule sample Questions]	1.0	02 June 2020
IRAS Application Form [IRAS_Form_03122020]		03 December 2020
Letter from sponsor [Bournemouth University sponsorship letter]	1.0	09 June 2020
Letter from statistician [Letter from Statistician]		06 October 2020
Non-validated questionnaire [Demographic Questionnaire]	1.1	16 November 2020
Organisation Information Document [Organisation Information Document]	1.0	06 October 2020
Participant consent form [Participant Consent Form Control Group]	1.2	05 January 2021
Participant consent form [Participant Consent form I.G.]	1.2	05 January 2021
Participant information sheet (PIS) [Participant Information Sheet]	1.0	02 November 2020
Research protocol or project proposal [Protocol]	1.0	02 November 2020
Schedule of Events or SoECAT [Schedule of Events]	1.0	09 October 2020
Summary CV for Chief Investigator (CI) [CV for CI JD]	1.0	08 August 2020
Summary CV for student [CI CV]	1.0	08 August 2020
Summary CV for supervisor (student research) [Catherine Angell CV]		01 September 2020
Summary CV for supervisor (student research) [Sarah Eales CV]		03 August 2020
Summary CV for supervisor (student research) [Dr Brannelly's CV]	1	15 December 2020
Summary of any applicable exclusions to sponsor insurance (non-NHS sponsors only) [EL PL and Products 2020-21]	1.0	01 August 2020
Summary, synopsis or diagram (flowchart) of protocol in non technical language [Study Flowchart]	1.0	01 October 2020
Validated questionnaire [Difficulty in Emotional Regulation Scale (DERS)]		
Validated questionnaire [Emotional Labour Scale (ELS)]		
Validated questionnaire [Resilience at Work Scale sample]	2011	14 December 2020
Validated questionnaire [MSCEIT Emotional Intelligence Test]	2.0	11 December 2002
Validated questionnaire [MBI Scale Sample Information]	n/a	14 December 2020

Information to support study set up

The below provides all parties with information to support the arranging and confirming of capacity and capability with participating NHS organisations in England and Wales. This is intended to be an accurate reflection of the study at the time of issue of this letter.

Types of participating NHS organisation	Expectations related to confirmation of capacity and capability	Agreement to be used	Funding arrangements	Oversight expectations	HR Good Practice Resource Pack expectations
There is only one participating NHS organisation therefore there is only one site type.	Organisations will not be required to formally confirm capacity and capability, and research procedures may begin 35 days after provision of the local information pack, provided the following conditions are met: - You have contacted participating NHS organisations (see below for details) - HRA and HCRW Approval has been issued - The NHS organization has not provided a reason as to why they cannot participate - The NHS organization has not requested additional time to confirm. You may start the research prior to the above deadline if HRA and HCRW Approval has been issued and the site positively confirms that the research may proceed. You should now provide the local information pack for your study to your participating NHS organisations. A	An Organisation Information Document has been submitted and the sponsor is not requesting and does not expect any other site agreement to be used.	External funding has been secured for this project. No study funding will be provided to sites as per the Organisation Information Document.	A Principal Investigator should be appointed at study sites.	The sponsor has stated that local staff in participating organisations in England who have a contractual relationship with the organisation will undertake the expected activities. Therefore no honorary research contracts or letters of access are expected for this study.

	current list of R&D contacts is accessible at the NHSR&D Forum website and these contacts MUST be used for this purpose. The password to access the R&D contact list is Redhouse1.				

Other information to aid study set-up and delivery

<i>This details any other information that may be helpful to sponsors and participating NHS organisations in England and Wales in study set-up.</i>
The applicant has indicated they intend to apply for inclusion on the NIHR CRN Portfolio

Appendix 12. HRA Amendment 1

Amendment Tool					For office use
v1.4 30 Nov 2020					QC: No
Section 1: Project information					
Short project title*:	DBT FOR MIDWIVES				
IRAS project ID* (or REC reference if no IRAS project ID is available):	279419				
Sponsor amendment reference number*:	Amendment 1				
Sponsor amendment date* (enter as DD/MM/YY):	10 March 2021				
Briefly summarise in lay language the main changes proposed in this amendment. Explain the purpose of the changes and their significance for the study. If the amendment significantly alters the research design or methodology, or could otherwise affect the scientific value of the study, supporting scientific information should be given (or enclosed separately). Indicate whether or not additional scientific critique has been obtained (note: this field will adapt to the amount of text entered)*:	NHS stakeholders required amendments of recruitment dates and start date of the intervention has been arranged (Covid-19 incurred delays). The recruitment will begin in May 2021 and the intervention will commence in October 2021. This will mean that the completion of the study will end in March 2022. The addition of the 'University of Rhode Island Change Assessment Scale' (URICA) used to assess readiness to change at entrance to intervention. Brief Description: The URICA is a 32-item self-report established as a standardised measure that has been evaluated, reviewed and scientifically critiqued. Responses are given on a 5-point Likert scale ranging from 1 (strong disagreement) to 5 (strong agreement) taking 10 minutes to complete. This measure will be applied once at the beginning of the study and will not be repeated. The Resilience at Work (RAW) repeated measure will be changed to the Connor-Davidson Resilience Scale (CD-RISC) instead. CD-RISC is a standardised reviewed and scientifically critiqued and evaluated self-reported measure comprising of 25 items that takes 5-10 minutes to complete as apposed to 20 minutes for the RAW Scales. The time saving of 10 minutes will accommodate the 10 minute time for the URICA Scale to be completed which will result in the same time management of prior approval. The sponsor has requested that I run the intervention myself (not an external trainer). In order to monitor the compliance and standards of DBT Skills training style, I will need to record my voice so that it can be verified as following the standards of teaching; this supervision will be completed by a named expert in the IRAS form. Change of University's research and development governance office contact address.				
Project type (select):	☒ Specific study ☐ Research tissue bank ☐ Research database				
Has the study been reviewed by a UKECA-recognised Research Ethics Committee (REC) prior to this amendment?:	☐ Yes ☒ No				
Is review by a UKECA-recognised Research Ethics Committee (REC) being sought for the first time because of this amendment?:	☐ Yes ☒ No				
Did the study involve NHS/HSC organisations prior to this amendment?:	☒ Yes ☐ No				
Did the study involve non-NHS/HSC organisations OR does the amendment introduce them?:	☐ Yes ☒ No				
	England	Wales	Scotland	Northern Ireland	
Lead nation for the study:	☒ England ☐ Wales ☐ Scotland ☐ Northern Ireland				
Which nations had participating NHS/HSC organisations prior to this amendment?:	☐ England ☐ Wales ☐ Scotland ☐ Northern Ireland				
Which nations will have participating NHS/HSC organisations after this amendment?:	☐ England ☐ Wales ☐ Scotland ☐ Northern Ireland				
Section 2: Summary of change(s)					
Please note: Each change being made as part of the amendment must be entered separately. For example, if an amendment to a clinical trial of an investigational medicinal product (CTIMP) involves an update to the Investigator's Brochure (IB), affecting the Reference Safety Information (RSI) and so the information documents to be given to participants, these should be entered into the amendment tool as three separate changes. A list of all possible changes is available on the "Glossary of Amendment Options" tab. To add another change, tick the "Add another change" box.					
Change 1					
Area of change (select)*:	Administrative details for the project				
Specific change (select - only available when area of change is selected first)*:	Contact details - Sponsor or representative				
Further information (free text - note that this field will adapt to the amount of text entered):	Sponsor address has changed to Studland House, 12 Christchurch Road, Boumemouth, BH1 3NA				
Applicability:	England	Wales	Scotland	Northern Ireland	
Where are the participating NHS/HSC organisations located that will be affected by this change?:	☐ England ☐ Wales ☐ Scotland ☐ Northern Ireland				
Will all participating NHS/HSC organisations be affected by this change, or only some? (please note that this answer may affect the categorisation for the change):	☒ All ☐ Some				
Add another change: ☐					

Change 2				
Area of change (select)*:	Study Documents			
Specific change (select - only available when area of change is selected first)*:	CRF/other study data records - Changes in the documentation used by the research team for recording study data			
Further information (free text - note that this field will adapt to the amount of text entered):	Switching Resilience at Work Scale (RAW) to validated measure Connor-Davidson Resilience Scale (CD-RISC). Time to complete CD-RISC is 5-10 minutes compared to RAW that takes 20 minutes. 10 minutes saving.			
Applicability:	England	Wales	Scotland	Northern Ireland
Where are the participating NHS/HSC organisations located that will be affected by this change?*	☐	☐	☐	☐
Will all participating NHS/HSC organisations be affected by this change, or only some? (please note that this answer may affect the categorisation for the change):	* All		○ Some	

Add another change: ☐

Change 3				
Area of change (select)*:	Study Documents			
Specific change (select - only available when area of change is selected first)*:	CRF/other study data records - Changes in the documentation used by the research team for recording study data			
Further information (free text - note that this field will adapt to the amount of text entered):	Addition of University of Rhode Island Change Assessment (URICA) Scales. 32-item validated standardised scales. 10 minutes to complete.			
Applicability:	England	Wales	Scotland	Northern Ireland
Where are the participating NHS/HSC organisations located that will be affected by this change?*	☐	☐	☐	☐
Will all participating NHS/HSC organisations be affected by this change, or only some? (please note that this answer may affect the categorisation for the change):	* All		○ Some	

Add another change: ☐

Change 4				
Area of change (select)*:	Stop or Restart			
Specific change (select - only available when area of change is selected first)*:	Restart of study following a temporary halt			
Further information (free text - note that this field will adapt to the amount of text entered):	Covid-19 Lockdown restrictions has delayed the start of research. This will now start in May 2021 and the intervention phase will commence in October 2021. The end of the study for participants will now be March 2022.			
Applicability:	England	Wales	Scotland	Northern Ireland
Where are the participating NHS/HSC organisations located that will be affected by this change?*	☐	☐	☐	☐
Will all participating NHS/HSC organisations be affected by this change, or only some? (please note that this answer may affect the categorisation for the change):	* All		○ Some	

Add another change: ☐

Change 5				
Area of change (select)*:	Study Documents			
Specific change (select - only available when area of change is selected first)*:	Other minor change to study documents (e.g. information sheets, consent forms, questionnaires, letters) that can be implemented within existing resource in place at participating organisations - Please specify in the free text below			
Further information (free text - note that this field will adapt to the amount of text entered):	Addition to consent forms for recording voice of trainer during intervention sessions for supervision purposes by a qualified registered NHS Health Professional named in IRAS approval documents.			
Applicability:	England	Wales	Scotland	Northern Ireland
Where are the participating NHS/HSC organisations located that will be affected by this change?*	☐	☐	☐	☐
Will all participating NHS/HSC organisations be affected by this change, or only some? (please note that this answer may affect the categorisation for the change):	* All		○ Some	

Add another change: ☐

Section 3: Declaration(s) and lock for submission

Declaration by the Sponsor or authorised delegate

• I confirm that the Sponsor takes responsibility for the completed amendment tool
 • I confirm that I have been formally authorised by the Sponsor to complete the amendment tool on their behalf

Name (first name and surname)*:	Julie Northam
Email address*:	jnortham@bournemouth.ac.uk

Lock for submission

Please note: This button will only become available when all mandatory (*) fields have been completed. When the button is available, clicking it will generate a locked PDF copy of the completed amendment tool which must be included in the amendment submission. Please ensure that the amendment tool is completed correctly before locking it for submission.

Lock for submission

After locking the tool, [proceed to submit the amendment online](#). The "Submission Guidance" tab provides further information about the next steps for the amendment.

Section 4: Review bodies for the amendment

Please note: This section is for information only. Details in this section will complete automatically based on the options selected in Sections 1 and 2.

	Review bodies														Category:				
	UK wide:					England and Wales:				Scotland:			Northern Ireland:						
	RSC	Competent Authority Medicines	Competent Authority M480A - Devices	APRAC	Radiation Assurance	UKSW Governance	RSC (MCA)	CAG	HMPPS	HRA and HCRW Approval	RSC (AWA)	elgip	RPS (RAC)	National coordinating function		RSC REC	RSC Data Guardians	Prisons	National coordinating function
Change 1:						Y				(Y)									C
Change 2:						(Y)				(Y)									A
Change 3:						(Y)				(Y)									A
Change 4:						(Y)				(Y)									A
Change 5:						(Y)				(Y)									C
Overall reviews for the amendment:																			
Full review:						Y				N									
Notification only:						N				Y									
Overall amendment type:	Non-substantial																		
Overall Category:	A																		
For office use:																			
Update HARP:	This amendment may involve an update to contact details or other project details. Ensure that HARP is updated with the current details. If this is the only change, no further study-wide review is required.																		

Appendix 13. Study Recruitment Poster

THE 1ST DBT SKILLS TRAINING FOR MIDWIVES IN THE WORLD!

MIDWIVES NEEDED FOR RESEARCH STUDY

DBT SKILLS GROUP TRAINING FOR MIDWIVES

WE ALL RECOGNISE OUR CLINICAL SKILLS
BUT WHAT ABOUT OUR SKILLS TO RESIST STRESS AND BURNOUT

A CHANCE TO DEVELOP YOUR RESILIENCE TO WORKPLACE ADVERSITY
HANDLE YOUR EMOTIONS AND IMPROVE YOUR RELATIONSHIPS AT WORK AND AT HOME.
LEARN PRECISE SKILLS TO TOLERATE DISTRESS IN CRISIS

BENEFITS:

4 SKILL-CATEGORIES = OVER 50 DIFFERENT SKILLS

AIM OF THE STUDY:

- To identify what strategies will help early career midwives manage their emotions arising from workplace adversity, work dissatisfaction, low morale, psychological distress and burnout.

WHY IS THIS NEEDED:

- Early career midwives have been identified as being at risk of leaving the profession within 5 years of their registration.
- Learning and developing skills to manage emotions is therefore important for midwives to maintain job satisfaction, reduce emotional exhaustion and improve their resilience to workplace adversity.

WHAT IS DBT-SKILLS TRAINING?
DBT is an evidence-based skills training programme aimed to improve and develop emotional regulation by learning skills that apply to stressful events in the workplace and manage emotions with colleagues, friends and family.

This training has been adapted to midwifery professional needs.

DISTRESS TOLERANCE SKILLS

MANAGE CRISIS AND STRESSFUL SITUATIONS SUCCESSFULLY WITHOUT MAKING THINGS WORSE

EMOTIONAL REGULATION SKILLS

BALANCE YOUR FEELINGS SO THAT YOU ARE LESS REACTIVE TO OTHERS

INTERPERSONAL EFFECTIVENESS SKILLS

COMMUNICATE YOUR NEEDS WHILE MAINTAINING RELATIONSHIPS AND KEEPING YOUR SELF-RESPECT

CORE MINDFULNESS SKILLS

FOCUS YOUR ATTENTION SO THAT YOU CAN HANDLE YOUR THOUGHTS AND FEELINGS

PARTICIPATION OPTIONS:

Intervention Group:

PHASE 1:

- Pre-test measures (5)
- 2-hour weekly DBT-Skills session for 6 weeks (with remote access attendance for 'shielding' staff)
- Post-test measures
- Follow-up measures (after three months)

PHASE 2:

- 1 hour interview (some participants)

Control Group:

PHASE 1:

- Pre-test measures
- Repeat measures (after 6 weeks)
- Final repeat measures (after three months)

PHASE 2:

- 1 hour interview (some participants)

Inclusion criteria

- Early career midwives 0 – 5 years of NHS practice.
- Access to Internet

Exclusion criteria

- Midwives that have more than 5 years of NHS practice.

For more information contact:
 Jess Doherty [REDACTED]
jdoherty1@Bournemouth.ac.uk
 DBT Skills for Midwives, version 1.0, IRAS: 279419

Bournemouth University

Appendix 14. Behavioral Tech Continuing Education Certificate for DBT Skills Online Course

**Behavioral Tech**
A Linehan Institute Training Company

CE/CME LETTER

Jessica Doherty
Name

05J0317E
License No.

has completed, in its entirety, the following Continuing Education/Continuing Medical Education Activity sponsored by Behavioral Tech. This course is a non-live, long-distance learning activity approved for 12 CE/CME hours.

DBT Skills

Presented by: Marsha M. Linehan, PhD, ABPP

January 02 2021 | Online Course, powered by Psychwire

Alcohol and Drug Abuse Counselors
This course has been approved by Behavioral Tech, LLC, as a NAADAC Approved Education Provider, for educational credits. NAADAC Provider# 77431, Behavioral Tech, LLC is responsible for all aspects of the programming. The allotted contact hours for this activity = 12.

Mental Health Counselors
Behavioral Tech is approved by an NBCC-Approved Continuing Education Provider (ACEP™), ACEP No. 5885. Programs that do not qualify for NBCC credit are clearly identified. Behavioral Tech, LLC, is solely responsible for all aspects of the program. The allocated clock hours for this activity = 12.

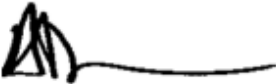
Psychologists
Behavioral Tech is approved by the American Psychological Association to offer continuing education for psychologists. Behavioral Tech maintains responsibility for the program and its content. Behavioral Tech has allocated CE hours within APA guidelines = 12.

Social Workers
Behavioral Tech is approved by the NASW, Washington State Chapter, Provider Number 1975-166, to offer CEs to social workers, mental health counselors, and MFTs certified/licensed specifically in Washington State. The hours of CE allocated for this activity = 12.

Behavioral Tech is approved by the New York State Education Department's State Board for Social Work, Provider No. 0040, as an approved provider of continuing education for licensed social workers. There's a total of 12 live contact hours allocated for this activity.

Nurses & Physicians (online training)
This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Behavioral Tech, LLC and Psychwire. Behavioral Tech, LLC is accredited by the ACCME to provide continuing medical education for physicians.

Nurses and Physicians should only claim credit commensurate with the extent of their participation in the activity. Continuing Medical Education is accepted by the ANCC for nursing certification renewal. The maximum AMA PRA Category 1 Credit™ designated by Behavioral Tech for this activity = 12.


Anthony P. DuBose, PsyD
Chief Training executive Behavioral Tech LLC

Behavioral Tech, LLC | 1107 NE 45th Street, Suite 114, Seattle, WA 98105 | info@behavioraltech.org | 206-675-8588

Appendix 15. Originally Planned Qualitative Phase

Phase Two Study Design

This phase of the protocol was unable to be implemented in the pilot study due to disaffection and non-response from participants in the intervention group after the DBT-ST intervention and across the follow-up last cycle of repeated measures of phase one. Disaffection in the control group also followed the same course despite being a separate cohort in the preceptorship group. Due to time constraints of the doctoral timeline combined with participant non-engagements in both groups, the university supervisory team and the researcher moved to consider the field note journal data. Below (Figure 1.1 and 1.2) depicts the planned methods of the original study design.

Original Phase 2 process

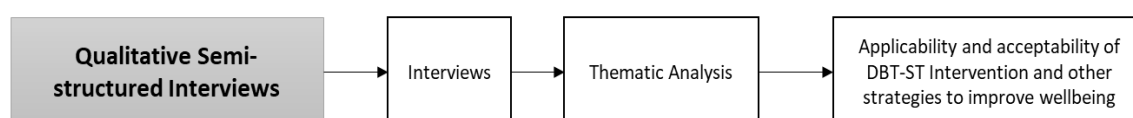


Figure 1.15.1 Planned Qualitative Phase 2

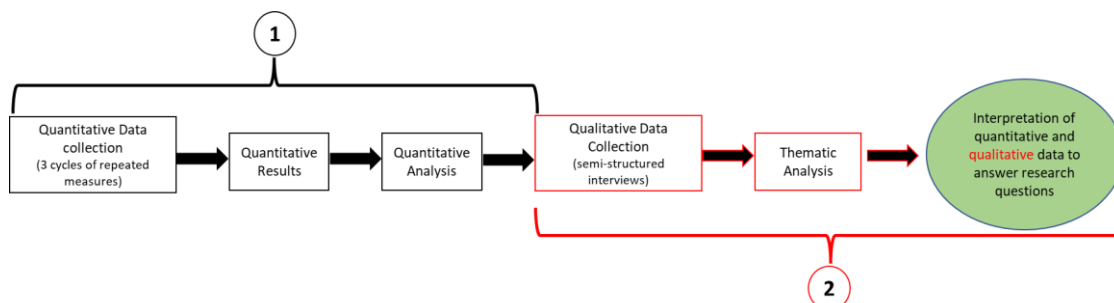


Figure 1.15.2 Originally Planned Phase 1 and 2 Flow

Planned Semi-structured interviews.

The qualitative method was planned to address the limitations of the quantitative methods chosen in Phase one of the MMR study design. As discussed above, standardised questionnaires to assess the preliminary effectiveness of the DBT-ST intervention are inflexible tools that limit the range of data collected on complex phenomena. Questionnaires are unable, on their own, to address the research question in phase 2 of the study that focused on the acceptability of the intervention and applicability of DBT Skill-sets in the context of practice. The researcher required questions that were destined to explore what strategies other than the skills covered within the

intervention should some participants hold other opinions that would improve their wellbeing in practice. Therefore, subjective data was planned by the mean of semi-structured interviews.

In phase 2 of the study protocol had planned to conduct one-hour semi-structured interviews in both intervention and control group (see sample interview schedule in Appendix 7). Additionally, the interview questions not relevant to the intervention but listed within the interview schedule were planned with the control group. The one-hour semi-structured interviews for the control group was for the purpose to explore opinions of what strategies are regularly applied to contend with adversity in practice and what strategies are needed to help them improve their resilience in the workplace.

The acceptability of DBT-STG intervention will consist of an analysis of the perceptions of the intervention group regarding the intervention and its various features. Acceptability was planned to be assessed by questions exploring the experiences of participating in the intervention. Applicability was planned to explore the usefulness of DBT Skill-sets in the practice setting.

The planned interviews were to be recorded and transcribed verbatim, coded, and analysed using an inductive thematic analysis via Braun and Clarke (2006). A pragmatic purposive sample for semi-structured interviews in the second phase of the study would have been determined by the thematic analytical saturation.

These semi-structured interviews planned to be conducted by the most convenient methods and time for the participants, either face-to-face at maternity service, by telephone, or by secure remote technology. The face-to-face or remote technology interviews will be recorded via an encrypted audio recording device operated by the Chief Investigator. Remote interviews will be completed on UHS remote access server and recorded digitally and transferred via EDGE to Bournemouth University's encrypted server by the Chief Investigator.

Planned Qualitative Data Analysis method:

Braun and Clarke's (2006) 6-phased thematic analysis. Analysis would have been conducted via NVivo software package by the researcher with oversight of the university supervisory team (Table).

four criteria for trustworthiness would have been applied: 1) Credibility established by the researchers' in-depth familiarisation of the context, setting and professional challenges of the profession. Peer scrutiny of the research project and supervisory team members will check that the process has been accomplished appropriately. 2) Transferability would have been enabled by the literature review establishing the background to frame the context and allow comparisons

to other studies. 3) Dependability: would have been enabled by a detailed account of methodological detail for reproduction. 4) Conformability: would have been enabled by triangulation of analysis to reduce researchers' bias and by the records and field note journal of decision-making process.

Planned Thematic Analysis procedures:

The qualitative data from semi-structured interviews would have been collected via audio recording and transcribed by the chef investigator. Interviews will be transcribed verbatim and subjected to six-step analysis schedule:

Table 15.1 Thematic Analysis Procedures

1. Familiarisation of the data	Transcribing interviews, reading and re-reading, taking notes.
2. Generate initial codes	Code for interesting features Examples (not exhaustive): 1. Codes referring to the intervention; feasibility, acceptability, efficacy 2. Codes referring to DBT Skill-sets 3. Codes for available strategies in maternity service.
3. Searching for Themes	Collating data into emerging themes
4. Reviewing Themes	Checking coherency: • Level 1: between themes and coded extracts • Level 2: themes in context of all datasets. Generate a thematic map of the analysis
5. Define and name Themes	Refine themes. Generate definitions and names of themes
6. Produce final report	Select the most compelling extracts to represent each theme. Relate to research questions and literature review.

Choice of Qualitative Methods

Qualitative methods seek to collect subjective data to provide an understanding of real-world complexities of human experiences (Creswell, 2014). Unlike quantitative methods that apply deductive reasoning, qualitative research is based upon inductive inquiry that focuses on the socially constructed nature of reality (Creswell and Plano Clark 2018). Investigating the

preliminary effectiveness of a novel intervention with quantitative methods alone may render feasibility objective, however, to consider subjective factors that influence those outcomes, qualitative methods are required. In this study, factors of acceptability of the intervention and applicability of the DBT Skill-sets on to the practice environment requires interrogation of the subjective experiences of participants.

The semi-structured interview method is a data collection method that is versatile that provides flexibility from both the interviewer and interviewee (Kallio et al 2016). The interview guide formulated by the researcher are based on questions related to the topic of interest or explain results from a quantitative phase of an MMR design (DeJonckheere and Vaughn 2019). This MMR design had an inductively framed question that required the collection of participants perspectives to further explain the findings of the first phase of the design.

Unlike quantitative methods, 'statistical representativeness is not the goal of qualitative research' (DeJonckheere and Vaughn 2019, Pg. 3). Instead, the aim of qualitative interviews is to reach thematic saturation through purposive sample. Indeed, flexibility is an important factor. The researcher is dependent on the availability and motivation of the interviewee to reach the level of exploration needed. Malterud et al (2016) proposed that 'information power' was a better concept to explain the level of information needed from participants; meaning it is the quality of disclosures rather than the amount of the sample size.

In this study, all participants were early career midwives that practiced in the same NHS Trust. Although their experiences of the intervention may have differentiating opinions of the intervention itself, all participants had similar practice experiences that enabled them to hold subjective views about what strategies would improve their wellbeing. Furthermore, participants in the intervention group would have gained opinions on the usefulness of DBT Skill sets that may be applicable to their practice environment. Therefore, collecting their opinions would benefit the quantitative outcomes of the first phase.

Qualitative analysis of the semi-structured interview data acquired from a predetermined thematic framework, rely on thematic or content analysis. Thematic analysis was chosen for its congruency with the aims defined by the research question for this phase in the design. Thematic analysis is considered a flexible approach to analysing qualitative data as long as there is consistency and transparency in how this is carried out (Braun and Clarke 2006). Guba and Lincoln (1985) argued that rigorous qualitative research required credibility, dependability, confirmability, and transferability within measures and processes. Thematic analysis has been criticised for its lack of theoretical underpinning. However, Braun and Clarke (2019) argued the lack of its own theoretical assumptions allows the framework to be applied more flexibly in

conjunction with a range of theoretical perspectives. It can be argued that this stance is in line with pragmatic assumptions in this research.

Objectives of Phase Two:

- To explore participants' experiences of the intervention and applicability of DBT Skills in practice (feasibility, acceptability, applicability).
 - Acceptability of DBT-STG intervention.
 - Applicability of DBT Skill-sets
- To explore what other strategies would benefit early career midwives to improve their resilience to workplace adversity.
 - Strategies that early career midwives find of benefit to improve their resilience to workplace adversity.
 - Improvements to the DBT Skills Training program for midwifery specifications.

Appendix 16. Standardised Measures Scoring and Interpretations

Emotional Labour Scale:

Scores and interpretations:

The items for each subscale are summed and added to provide the total score of emotional labour.

The Total ELS score has a range of 15 to 75 possible scores. For the Surface Acting, Deep Acting, and Frequency subscales, these comprise 3 items each, ranging from 3 to 15 possible scores. The Intensity subscale is comprised of 2 items with a range of 2 to 10 possible scores. Finally, the Variety subscale is comprised of 4 items ranging from 4 to 20.

The five subscales are related to duration of interaction. Two subscales related to internal state and related behaviour: Deep active and surface acting. Three subscales relating to subjective experience of emotion-related role requirement: frequency, intensity, variety (Brotheridge and Lee 2003).

Scoring Breakdown:

- Total ELS scores range from 15 to 75.

Subscale ranges:

- Surface Acting: 3 items (range 3–15).
- Deep Acting: 3 items (range 3–15).
- Frequency: 3 items (range 3–15).
- Intensity: 2 items (range 2–10).
- Variety: 4 items (range 4–20).

Interpretation of Scores:

Detailed interpretation for each subscale:

- Surface Acting and Deep Acting: Reflect levels of behavioural emotional display strategies.
- Frequency: Reflects how often emotional displays are required.
- Variety: Reflects the range and complexity of emotions employees are expected to express.
- Intensity: Reflects the degree of effort required to conform to workplace emotional demands.

Example Items:

A table or list with example items for each subscale:

- Surface Acting: 'I pretend to have emotions that I do not really have.'
- Deep Acting: 'I try to actually experience the emotions that I must show.'
- Frequency: 'I frequently show emotions as part of my job.'

Total scores in the subscales for Surface Acting and Deep Acting represent the levels of behavioural emotional display strategies. The Frequency subscale reflects how often an individual is required to express organisational and professionally desired emotions during their work. Higher scores indicate that an employee frequently engages in emotional displays as part of their job that requires constant emotional management. The Variety subscale reflects the range and complexity of the emotions that employees are expected to express, and the difficulty involved in these expressions. High scores in this subscale reflect a job role that requires a wide variety of complex emotional expressions, which can be challenging and potentially stressful. For the Intensity subscale, reflects the degree of effort and intensity required to conform to the emotional expressions demanded by the workplace. It looks at how strongly or deeply employees must express certain emotions, regardless of their actual feelings. Higher scores on this subscale suggest that employees are frequently required to display emotions intensely, which can be especially demanding and draining. Higher scores in certain subscales, such as intensity or high frequency of emotional display, may indicate higher levels of emotional labour, which could be linked to outcomes like stress or job dissatisfaction (Zapf 2002, Jeung et al. 2018).

Difficulties of Emotion Regulation Scales:

The subscales provide detailed insights into specific areas of emotional dysregulation, allowing researchers to evaluate changes after psychological interventions and identify areas requiring further support (Gratz and Roemer 2004).

Scoring and interpretation:

The scoring process of the DERS involves reverse-scoring on 11 questions followed by adding the final scores. Higher scores of overall DERS and its subscale scores indicate greater difficulties in emotion regulation. The subscales allow the examination of the relationships between various aspects of emotion regulation and psychological outcomes. By measuring these subscales before and after psychological interventions, researchers can assess which aspects of emotion regulation have improved and which may need further intervention.

Subscale Interpretations:

- Nonacceptance: Reflects difficulty accepting negative emotions.
- Goals: Measures challenges in focusing on tasks when upset.
- Impulse: Captures the inability to control impulses under distress.
- Awareness: Assesses lack of awareness of emotional states.
- Strategies: Evaluates limited perceived ability to regulate emotions effectively.
- Clarity: Represents difficulty identifying and understanding emotions.

Example Items for Subscales:

- Nonacceptance: 'When I'm upset, I feel ashamed of myself for feeling that way.'
- Goals: 'When I'm upset, I have difficulty concentrating.'
- Impulse: 'When I'm upset, I lose control over my behaviours.'
- Awareness: 'I pay attention to how I feel.' (Reverse-scored)
- Strategies: 'When I'm upset, I believe there is nothing I can do to feel better.'
- Clarity: 'I am confused about how I feel.'

Mayer, Salovey and Caruso Emotional Intelligence Text (MSCEIT):

As already discussed in Chapter 5, Section 5.5, the MSCEIT is based on four cognitive abilities: perception of emotions in oneself and others, utilization, understanding, and managing emotions to facilitate thinking. The test is uniquely designed to assess and measure how well individuals perform tasks and solve emotional problems. The authors contend that self-reported measures are subjective and can introduce biases in responses, stating: "self-reports of intelligence are rarely correlated with actual intelligence" (Mayer et al. 2002, p.7). Therefore, this test is scored via an expert consensus method based on 21 international emotion researchers, which renders the scores unaffected by self-concepts or emotional states of respondents during the assessment (Caruso et al. 2019).

The MSCEIT has a total of 141 items across 8 different tasks, comprising photographs of faces, landscapes, objects, and questions in a multiple-choice format, including single-best-answer questions (where one correct answer must be chosen) and rating-scale questions (where several options may be rated according to their appropriateness or effectiveness).

- **Branch 1: Perceiving Emotions.** This branch assesses a respondent's ability to identify emotions in oneself and others. It includes two main tasks:
 - **Faces Task** consists of series of photographs of faces where respondents must identify the emotions expressed.
 - **Pictures Task** are represented by various artistic designs and landscapes where respondents must identify the emotions conveyed or choose which emotions best fit the pictures.

- **Branch 2: Facilitating Thought.** This branch examines a respondent's use of emotions to aid and foster ideas. It includes:
 - **Facilitation Task** are presented for the purpose of determining how different emotions can enhance or interfere with specific types of thinking.
 - **Sensations Task** are used to assess how different emotions affect sensory perception.
- **Branch 3: Understanding Emotions.** This branch evaluates a respondent's knowledge about emotions, including complex emotions. It includes:
 - **Blends Task** involve descriptions or scenarios that involve mixed emotions, requiring respondents to identify the primary emotions that make up these complex states.
 - **Changes Task** involve scenarios where an emotional state is described at one point in time, and respondents must predict how emotions will change under specific circumstances or as time progresses.
- **Branch 4: Managing Emotions.** This branch evaluates a respondent's capacity for emotion regulation and their ability to manage emotions within interpersonal relationships. It includes tasks designed for decision-making on how best to manage personal emotions in various situations and determining the most effective ways to manage the emotions of others.

The results of the MSCEIT offer an Emotional Intelligence Quotient (EIQ) total score as a global score against a normative sample of 5,000 individuals, with a Cronbach's alpha coefficient of 0.80 to 0.93 for reliability on totals and the four branches. Its test-retest reliability ranges from 0.86 to 0.92 over a period of 3 weeks to 4 months, suggesting that the test results are stable over time under consistent conditions (Mayer et al. 2012; Brackett and Mayer 2003).

Interpretation of MSCEIT scores

The scores of the MSCEIT are then compared to the guidelines provided by Mayer et al. (2002).

Table 16.1 Guide for Interpreting MSCEIT Scores (Mayer et al. 2002)

Guideline for Interpreting MSCEIT Scores	
EQ Range	Qualitative Range
69 or less	Consider Development
70-89	Consider Improvement
90-99	Low Average
100-109	High Average
110-119	Competent
120-129	Strength
130 +	Significant Strength

The MSCEIT was administered through the licence holder's website. The online administration required participants to complete the test remotely. Participants were sent a link to access the test online using their study Personal Identifier Number (PIN). After completion of the test, the licence holder's scoring service completed their consensus scoring of each test. Data sets were made available to the researcher via downloadable Excel spreadsheets.

Maslach Burnout Inventory-Human Services Survey (MBI-HSS) Details

Scoring Process:

The individual items in this measure are then tallied to reveal subscale scores and total MBI.

Interpreting MBI scores involves not just looking at the raw scores but considering them in the context of the specific work environment and comparing them with normative data when available. Whilst each subscale is assessed individually, the total burnout level is generally considered by examining the pattern of scores across these three dimensions rather than combining them into a single score. Although, high burnout is indicated when a participant scores high on EE and DP and low on PA, specific cutoff scores for what constitute high or low on these scales can vary depending on the population and the settings in which the MBI is used.

Total scores for the MBI-HSS determine the levels of burnout for EE and Depersonalisation, Scores above the median or in the top third percentile of a sample can be considered high. Scores in the lower third or significantly below the median suggest lower levels of personal accomplishment. High Emotional Exhaustion and High Depersonalization scores are indicative of higher burnout. Lower scores indicate a greater feeling of ineffectiveness and dissatisfaction with personal accomplishment. Low Personal Accomplishment also contributes to the overall burnout picture, reflecting feelings of inefficacy.

Subscale item counts:

- EE: 9 items
- DP: 5 items
- PA: 8 items

Scoring ranges for each subscale.

Normative data comparison for identifying high or low burnout levels.

Interpretation:

High EE and DP scores indicate emotional depletion and cynicism.

Low PA scores reflect feelings of inefficacy.

Example thresholds for high, moderate, and low burnout scores.

Limitations:

Overlap between EE and DP in some studies.

Potential self-reporting biases.

Subscale scores are calculated by summing the item scores within each dimension.

Interpretation involves examining the pattern of scores across the three dimensions, as total burnout is not represented by a single score.

High burnout is typically identified by high scores in EE and DP and low scores in PA.

Detailed Interpretation of Scores:

Emotional Exhaustion (EE): High scores indicate significant emotional depletion, a core aspect of burnout.

Depersonalization (DP): High scores reflect feelings of detachment or cynicism toward others.

Personal Accomplishment (PA): Low scores suggest feelings of inefficacy or dissatisfaction with professional achievements.

Burnout levels are often determined by comparing scores against normative data or sample-specific medians.

Example: Scores in the top third percentile for EE and DP, coupled with low PA scores, indicate high burnout.

Relevance of Subscale Patterns:

High EE and DP with low PA reflect a comprehensive burnout profile.

Low scores on PA may still contribute to burnout, particularly in contexts where individuals feel ineffective or undervalued.

Critiques and Limitations:

Although widely validated, some overlap between EE and DP has been noted in research, suggesting interdependence between these dimensions (Schaufeli et al. 2009a; Cole et al. 2012). Self-reporting can introduce biases influenced by self-perception or social desirability.

Connor-Davidson Resilience Scale 25 (CD-RISC 25) Details

Validation:

- Cronbach's alpha: 0.89 for general population.
- Test-retest reliability: 0.87 in clinical populations (e.g., PTSD and GAD).

Scoring:

- Total score range: 0 to 100.
- Scoring method: Summing responses across all 25 items.

Interpretation:

High scores indicate greater resilience.

Example Items:

- Example 1: 'I am able to adapt to change.'
- Example 2: 'I believe I can achieve goals despite obstacles.'

Limitations:

Limitations in measuring resilience as a process or within specific theoretical frameworks.

It does not capture the resilience process or theoretical constructs. The authors note that whilst the CD-RISC assesses characteristics associated with resilience, it does not evaluate the resilience process nor does it delve into the theoretical aspects of resilience, for which there is no scholarly consensus yet. They also caution against viewing resilience as a uniform ability across different contexts; one might exhibit resilience to workplace adversity but not necessarily in interpersonal relationships (Connor and Davidson 2003). Resilience varies across contexts and is not a universal ability.

University of Rhode Island Change Assessment Scale (URICA) (Prochaska and DiClemente 1983)

The URICA Scale is the most widely used measure for assessing stages of readiness for change. This measure is based on the transtheoretical model of change that predicts that change is enabled with clients that are in a particular stage of preparedness to enter self-improvement interventions. A mismatch between those therapeutic approaches and the client's stage can result in success or failure of the intervention. For instance, McConaughy et al. (1989) explain that the URICA's precontemplation stage is more of a denial of the need to change because clients may believe that there isn't a problem that needs addressing. A high score for Precontemplation and low scores on Action may be indicative of dropping out of therapy (McConaughy et al. 1989). The level of readiness to change involved in attitudes, intentions, and behaviours can greatly affect motivation to engage in processes that are targeted to develop wellbeing through therapeutic interventions.

Although the URICA measure is a repeatable measure in the context of therapy, readiness to Change score can be used to assess readiness to change at entrance to treatment (Hasler et al. 2003). The URICA was applied pre-intervention for the intervention group only. This decision was taken based on the gatekeeper requirements for the recruitment pool to be conducted on a small newly employed group of preceptorship midwives. After checking with a DBT expert consultant, advice was given to add the URICA to the list of already planned measures. This would enable the measurement of readiness for change which would provide additional motivational factors that affect treatment success and outcomes of the intervention. Therapeutic interventions require individuals to be motivated to change because "readiness to change powerfully moderates the success of psychotherapy" (Norcross et al 2022, p.74).

Scoring and Interpretation:

- Scores for the four stages (Precontemplation, Contemplation, Action, and Maintenance) are calculated using a weighted average of the sub-scores.
- The maximum possible score is 14, with higher scores indicating increased readiness to change.
- Scores are compared against the normative charted ranges provided by the authors.

Theoretical Context:

- The transtheoretical model predicts that readiness to change moderates the success of psychotherapy (Norcross et al. 2022).
- Precontemplation represents denial or lack of awareness of the need for change, often linked to poor intervention engagement (McConaughy et al. 1989).

Validation and Psychometric Properties:

- Cronbach's alpha values for the subscales:

- Precontemplation: 0.79
- Contemplation: 0.84
- Action: 0.84
- Maintenance: 0.82
- Established as reliable for measuring readiness to change in psychotherapy contexts (McConaughy et al. 1989).

Example Items:

- Precontemplation: 'As far as I'm concerned, I don't have any problems that need changing.'
- Contemplation: 'I've been thinking that I might want to change something about myself.'
- Action: 'I am really working hard to change.'
- Maintenance: 'I have been able to maintain changes I've made.'

Rationale for Use in the Pilot:

- The URICA was included at the recommendation of a DBT expert consultant to evaluate readiness to change as a motivational factor.
- This aligns with the study's focus on factors affecting the success of psychological interventions.

Administration Details:

- Delivered electronically to the intervention group only.
- Ethical approval was obtained prior to implementation (see Appendix 11 and Appendix 12).

Appendix 17. Scoping Review Protocol and Methodology

Title: Wellbeing in Midwifery Practice: A Scoping Review

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Eligibility criteria table:

Summary of the eligibility criteria used for study selection, developed in line with the JBI Population–Concept–Context (PCC) framework. Includes rationale for inclusion and exclusion decisions based on population, concept, context, study design, language, and time period.

Table. A1. Eligibility criteria

Criteria	Inclusion	Exclusion
Population:	Midwives (including early-career midwives, senior midwives, and midwifery managers).	Studies focusing on healthcare professionals other than midwives (e.g., nurses, medical professionals, maternity support workers). Studies where midwives are not the primary population of interest. Studies focusing on student-midwives.

Concept:	Factors of midwifery care/practice that affect wellbeing, including aspects such as burnout, compassion fatigue, secondary PTSD, stress, exhaustion, emotional exhaustion, cognitive dissonance, anxiety, emotional distress, psychological distress, horizontal violence/bullying, emotions, emotional labour, emotion work, relationships, job satisfaction and attrition, retention, turnover. Positive outcomes include staying, thriving, and resilience.	Studies that do not specifically address factors of midwifery care affecting wellbeing. Studies focusing solely on clinical outcomes of midwifery care without any mention of the aspects of the well-being of midwives.
Context:	literature from countries with similar healthcare systems.	Studies from regions or countries where the context of midwifery practice is vastly different and may not be comparable to the context of interest.
Publication Characteristics:	Studies without peer review (e.g., non-peer-reviewed conference abstracts, non-peer-reviewed articles).	Non-English language publications. Studies published before 2014.
Outcomes:	All primary and secondary research studies. Case reports and case series that do not provide generalisable data.	Studies focusing exclusively on clinical outcomes without addressing midwives' experiences or wellbeing.

Search strategy Tables:

The search terms were determined with the collaboration of an experienced university librarian and reviewed with the supervision team. Table 2 demonstrates the list of search terms applied during the searches as keywords or Medical Subject Headings (MeSH) where appropriate according to the JBI 2015 PCC framework. The terms within each row were combined with OR. The resulting rows were then combined with AND (Population AND Concept AND Context). A further hand search of foundational articles identified additional papers and added them to the PRISMA diagram (Fig. 1).

A literature search was first conducted in June 2019 and evolved during the development of the thesis. The search was repeated in July 2024 after the Viva Voce examination. Between these two time periods, there was a change made to the library catalogue search system 'mySearch'. Therefore, the updated search in July 2024 used the EBSCOhost database search system. EBSCOhost is a similar database to the previous 'mySearch'. The following databases were searched:

Databases: CINAHL and MEDLINE (via EBSCOhost), PubMed and Scopus. However, Scopus database did not render relevant literature.

Keywords and Index Terms: The researcher developed a comprehensive list of keywords and MeSH terms related to midwifery care, well-being, burnout, resilience, stress, etc.

EBSCOhost: the researcher applied a more detailed search strategy including Population (P), Concept (C), and Context (C) terms. Example terms:

Table A2a. Search Term Examples

Search categories	Key words
Population:	Midwives OR Midwife OR Midwifery
Concept:	"Job Satisfaction" OR Stress OR Occupational OR "Quality of Working Life" OR "Professional Autonomy" OR "Professional Burnout" OR burnout OR burn-out OR "burn out" OR "Stress, Psychological" OR "Stress" OR "Role Stress" OR "Subjective Stress" OR "Anxiety" OR Fear OR "Compassion Fatigue" OR "Emotional Exhaustion" OR exhaustion OR fatigue OR "Psychological Distress" OR "Emotional Regulation" OR "Emotion Work" OR "Emotional Labor" OR "Emotional Labour" OR "Violence" OR "Workplace Violence" OR Bullying OR "Horizontal Violence" OR "Culture" OR "Organizational Culture" OR "Workplace culture" OR "Interprofessional Relations" OR "Psychological Trauma" OR "Secondary Traumatic Stress" OR "Vicarious Trauma" OR Post-Traumatic OR "Post Traumatic Stress" OR "Post Trauma Stress Disorders" OR retention OR attrition OR turnover OR "intention to leave" OR "intention to stay" OR "staff shortages" OR short-staffing OR understaffed
Context:	Resilience OR "Psychological Well-being" OR Wellbeing OR Well-being OR "Well being" PubMed: the researcher applied a simplified search strategy focusing on Population (P) and Concept (C) without explicitly including context terms because the population also indicated the context. There were limited results when wellbeing and resilience were applied as context only.

Table A2b. Database Search Strategies

PubMed Search Strings			
String No	Terms	June 2019	July 2024
#1	((("Midwife"[Title] OR "Midwives"[Title] OR "Midwifery"[Title]) AND ("hasabstract"[All Fields] AND "loattrfull text"[Filter] AND 2000/01/01:2024/12/31[Date - Publication] AND "english"[Language] AND "adult"[MeSH Terms]))	1,487	1,829
#2	((("psychological well being/psychology"[MeSH Terms] OR "resilience, psychological"[MeSH Terms:noexp] OR "Job Satisfaction"[MeSH Major Topic] OR "occupational stress/psychology"[MeSH Terms] OR "burnout,	714,165	907,625

	professional/psychology"[MeSH Terms] OR "Psychological Distress"[MeSH Terms] OR "fear/psychology"[MeSH Terms] OR "Anxiety"[MeSH Terms:noexp] OR "psychological trauma/psychology"[MeSH Terms] OR "compassion fatigue/psychology"[MeSH Terms] OR "Emotional Exhaustion"[MeSH Terms] OR "Cognitive Dissonance"[MeSH Terms] OR "Emotion work"[All Fields] OR "Emotional Labour"[All Fields] OR "Emotional Labor"[All Fields] OR "Emotional Regulation"[MeSH Terms] OR "Personnel Turnover"[MeSH Terms] OR "Personnel Staffing and Scheduling"[MeSH Terms] OR ("retention, psychology"[MeSH Terms] OR ("retention"[All Fields] AND "psychology"[All Fields]) OR "psychology retention"[All Fields] OR "retention"[All Fields] OR "retentions"[All Fields] OR "retentive"[All Fields] OR "retentiveness"[All Fields]) OR "relationship*"[All Fields] OR "Stay"[All Fields] OR ("leave"[All Fields] OR "leaved"[All Fields] OR "leaving"[All Fields] OR "plant leaves"[MeSH Terms] OR ("plant"[All Fields] AND "leaves"[All Fields]) OR "plant leaves"[All Fields] OR "leaves"[All Fields]) OR ("autonomies"[All Fields] OR "autonomy"[All Fields]) OR ("culturabilities"[All Fields] OR "culturability"[All Fields] OR "culturable"[All Fields] OR "culturalism"[All Fields] OR "culture"[MeSH Terms] OR "culture"[All Fields] OR "cultural"[All Fields] OR "culturally"[All Fields] OR "cultures"[All Fields] OR "culture s"[All Fields] OR "cultured"[All Fields] OR "culturing"[All Fields] OR "culturings"[All Fields] OR "ethnology"[MeSH Subheading] OR "ethnology"[All Fields])) AND ("hasabstract"[All Fields] AND "loattrfull text"[Filter] AND 2000/01/01:2024/12/31[Date - Publication] AND "english"[Language] AND "adult"[MeSH Terms])) AND ((fha[Filter]) AND (fft[Filter]) AND (2000:2024[pdat]) AND (english[Filter]) AND (alladult[Filter]))		
#3	#1 AND #2	568	715

Table A2c. Search strings used for MEDLINE, CINAHL and PsycINFO:

String No#	Terms MEDLINE	June 2019	July 24 2024
S1	Resilience	58,907	62,851
S2	(MM Psychological Well-Being)	17,463	18,571
S3	wellbeing or well-being or well being	229,053	195,862
S4	(MM Job Satisfaction)	23,537	13,055
S5	"Job Satisfaction"	66,603	34,661
S6	(MM Stress, Occupational)	6,963	41,303
S7	(MM "Quality of Working Life")	813	89,311
S8	(MM "Professional Autonomy")	3,791	4,429
S9	(MM "Burnout, Professional")	11,612	14,827
S10	burnout OR burn-out OR burn out	34,623	30,758
S11	(MM "Stress, Psychological")	75,576	82,491

S12	(MM "Stress")	32,688	54,230
S13	(MM "Role Stress")	295	307,618
S14	(MM "Subjective Stress")	21	19,423
S15	(MM "Anxiety")	69,450	50,505
S16	Fear	139,928	117,840
S17	(MM "Compassion Fatigue")	693	986
S18	(MM "Emotional Exhaustion") OR exhaustion or fatigue	161,228	177,298
S19	(MM "Psychological Distress")	46,426	3,852
S20	(MM "Emotional Regulation") OR "Emotion Work" OR "Emotional Labor" OR "Emotional Labour"	10,019	3,553
S21	(MM "Violence") OR (MM "Workplace Violence") OR Bullying OR "Horizontal Violence"	70,053	34,705
S22	(MM "Culture") OR (MM "Organizational Culture") OR "Workplace culture"	28,281	21,974
S23	(MM "Intraprofessional Relations") OR (MM "Interprofessional Relations")	24,410	22,671
S24	(MM "Psychological Trauma") OR (MM "Stress Disorders, Post-Traumatic") OR "Secondary Traumatic Stress" OR "Vicarious Trauma"	38,077	39,478
S25	secondary traumatic stress or vicarious trauma OR Post-Traumatic OR "Post Traumatic Stress" OR Psychological Trauma Stress Disorders, Post-Traumatic	100,873	77,964
S26	retention or attrition or turnover or intent to leave or intent to stay	275,462	376,052
S27	staff shortages or shortage of staff or short-staffing or understaffed	4,526	3,255
S28	S1 OR S2 OR S3	231,537	251,437
S29	(S1 OR S2 OR S3) AND (S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27)	200,738	39,196
S30	Midwi*	150,475	108,905
S31	(Midwi*) AND (S28 AND S29 AND S30)	3,013	1,137
S32	(Midwi*) AND (S28 AND S29 AND S30) Full Text, Abstracts, English	1,604	538

PRISMA-ScR flow diagram

The screening and selection process followed the PRISMA-ScR guidelines. An initial total of 1984 records were identified through database searches. After removing duplicates and screening titles and abstracts, [insert number] full-text articles were assessed for eligibility. A final sample of 47 studies was included in the review.

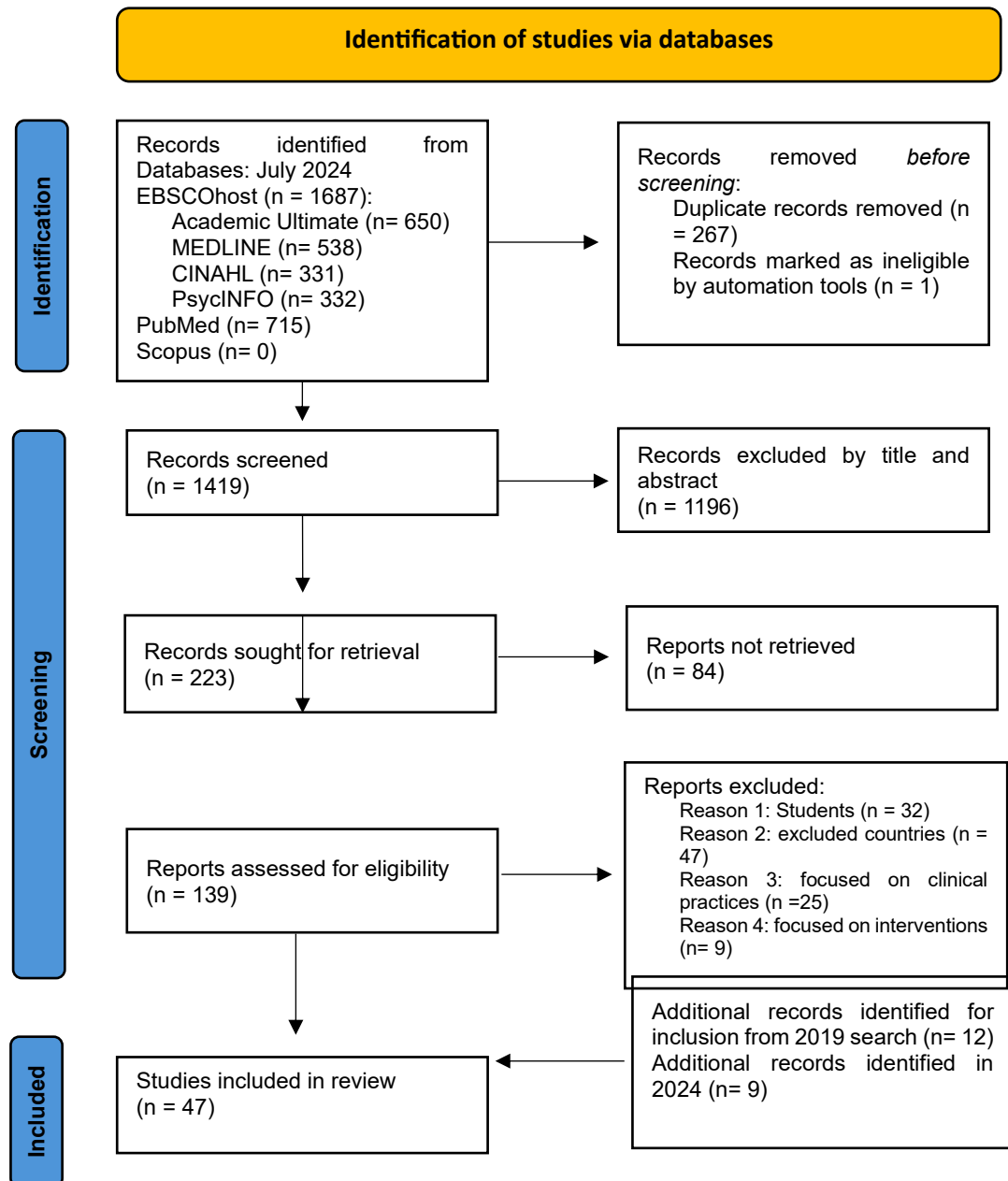


Figure A1. PRISMA-ScR flow diagram

Data Charting the results

Data charting was managed using EndNote and Microsoft Excel. A bespoke data extraction form was developed to capture key information from each included study. The following categories were used to chart the data: (1) study identification (including authors, publication year, title, and country); (2) type of publication and/or study design; (3) stated study aims; (4) key findings; (5) participant characteristics; (6) study context; (7) concepts related to wellbeing; (8) identified subjective wellbeing factors, categorised as either *organisational*, *intrapersonal* or *interpersonal* factors ; and (9) non-modifiable or structural factors, categorised as organisational in nature.

This framework allowed for a consistent and comprehensive approach to organising the evidence. Data were charted manually and reviewed iteratively for accuracy and completeness.

Table A3. Data Extraction Chart (Details of studies included in the scoping review).

No	Title	Authors, year of publication	Country	Publication Type, Study design	Aim of study	Key Findings:	Population type	Concepts	Context	Wellbeing factors
1+	Emotion work in midwifery: a review of current knowledge	Hunter 2001	Secondary research, Journal of Advanced Nursing UK	Literature review	Emotional Labour and sources of emotions in midwifery practice	Understanding emotions to improve midwives' wellbeing	midwives	Emotion work	All career stages	Interpersonal factors: Emotionality of relationships with women and colleagues Intrapersonal factors: Understanding emotions to improve midwives' working lives
2 #556	Australian midwives' intentions to leave the profession and the reasons why	Harvie et al. 2019	Original research Women and Birth AUSTRALIA	Mixed methods Analysis of dataset collected as part of the Work, Health and Emotional Lives of Midwives (WHELM) study.	Determine incidence of intention to leave among Australian midwives and the reasons why.	Dissatisfaction with organisation of midwifery care, and dissatisfaction in the role of the midwife. Early career midwives were rated highest on considering leaving due to dissatisfaction with role.	1037 midwives,	Attrition	Midwives 20% Early career RM (< 5 years' experience)	Organisational factors: Improvements to working lives Interpersonal factors: Working relationships: Incivility Scrutiny and lack of support. Clinical risks and management Intrapersonal factors: Positive outcomes: Relationships with women. Being with-woman Making a difference Being a midwife
3+	Midwives' experiences	Hunter and	Original research	exploratory qualitative descriptive	Explore personal, professional factors of resilience and factors that	Four themes: challenges to resilience, managing and	11 practising midwives	Resilience	Senior Midwives	Interpersonal factors: support/ positive relationships

	of workplace resilience	Warren 2014	Midwifery Journal UK	study with thematic analysis.	contribute or are barriers to resiliency	coping, self-awareness and building resilience.	with 15 or more years of experience			Intrapersonal factors: Coping strategies: Developing self-awareness Strong sense of professional identity social
4 #653	"Overwhelmed and out of my depth": Responses from early career midwives in the United Kingdom to the Work, Health and Emotional Lives of Midwives study	Cull et al 2020	Original research, Women and Birth UK	Qualitative Thematic analysis As part of the United Kingdom arm of the Work, Health and Emotional Lives of Midwives project (WHELM) study	To identify what ECMs consider what factors in their practices inspire job satisfaction and dissatisfaction.	Four themes: Midwives under pressure, the inherently unpleasant work of midwifery, positive and negative relationships with colleagues, personalised compassionate care of midwives	620 early career midwives	Health and Emotional wellbeing	Early career midwives (< 5 years' experience)	Organisational factors: Organisational constraints Workloads Lack of time and staffing levels Interpersonal factors: Relationships with colleagues and women Intrapersonal factors: Agency, control, compassion, Stress, fear of making mistakes
5+	Why do Midwives leave	Ball et al 2003	Original research, RCM UK	Qualitative Grounded Theory and ethnographic interviews	Exploration of why midwives leave the profession	Phase one: theme of the impact of leaving Phase two: Five themes: Dissatisfaction with midwifery, family commitments, planned career change, retirement, ill health.	1016 midwives	Attrition	All career stages	Organisational factors: Organisational changes and constraints, challenging working environment, lack of support, Interpersonal factors: Relationships: Horizontal violence, collegiality
6 #229	Relationships between working conditions and emotional wellbeing in midwives	Cramer and Hunter 2019	Secondary research, Women and Birth UK	Literature Review	Review the evidence to determine the relationship between working conditions and emotional wellbeing in midwives to develop an analytical framework	Poor emotional wellbeing in midwives is comprised of complex interrelated factors of modifiable and non-modifiable. Working conditions,	n/a	Wellbeing	All career stages	Organisational factors: Staffing, workloads, working patterns, clinical adverse events, hierarchical culture, managerial support Interpersonal factors: Relationships: Collegiality, conflict, bullying, support, Intrapersonal Factors: Emotional management

										Autonomy, control trauma, burnout, resilience
7 #881	Prevalence of burnout, depression, anxiety and stress in Australian midwives: a cross-sectional survey	Creedy et al 2017	Original research BMC Pregnancy and Childbirth AUSTRALIA	Quantitative Cross-sectional survey	Prevalence of personal and work-related burnout and psychological Morbidity in Australian midwives	High levels of personal and work-related burnout, burnout subscales were significantly correlated with depression, anxiety and stress, particularly personal and work-related burnout	1037 midwives	Wellbeing and Burnout	All career stages	Organisational factors: Organisational working models and patterns (fragmented care) Interpersonal factors: professional conflicts Intrapersonal factors: Depression, anxiety, and stress
8 #1276	Sustainability and resilience in midwifery: A discussion paper	Crowther et al 2016	Secondary publication, Midwifery Journal UK	Qualitative discussion paper	To explore the concept of sustainability and resilience in midwifery in the UK and New Zealand	Four themes: self-determination, self-care, cultivation of relationships, passion for midwifery	n/a	Wellbeing via resilience and sustainability	All career stages	Interpersonal factors: Relationship sustainability Intrapersonal factors: Self-motivation
9 #765	Australian midwives' experiences of their workplace culture	Catling et al 2017	Original research, Women and Birth AUSTRALIA	Qualitative descriptive design, thematic analysis	To explore the midwifery workplace culture from the perspective of midwives themselves	5 themes: Bullying and resilience, Fatigued and powerless midwives, Being 'hampered by the environment', and The importance of support for midwifery	23 midwives	Wellbeing and workplace culture. Bullying, support	All career stages	Organisational factors: Managerial and professional support Interpersonal factors: Collegial relationships Intrapersonal factors: Managing stress and emotions.
10 #349	Personal, professional and workplace factors that contribute to burnout in Australian midwives	Fenwick et al 2018	Original research, Journal of Advanced Nursing AUSTRALIA	Quantitative Self-administered online survey (Copenhagen Burnout Inventory)	To identify the personal and professional Burnout levels in midwives	643 had moderate to severe personal burnout, 428 had high professional burnout. 5-10 year experienced RM had higher client-related burnout. Personal and professional Burnout resulted in job dissatisfaction	990 midwives	Wellbeing and Burnout	All career stages	Interpersonal factors: Relationships with clients and colleagues Intrapersonal factors: Emotional management, burnout, stress, exhaustion
11 #1523	"I love being a midwife; it's who I am": A Glaserian Grounded	Bloxsome et al 2019	Original research, Journal of Clinical Research Journal	Qualitative Ground Theory, interviews	To understand why Western Australian (WA) midwives choose to remain in the profession.	Primary category: 'I love being a midwife, that who I am'. Subcategories: 'People I work with make all the difference', 'I want to be with woman' so I can make a	23 midwives	Wellbeing, satisfaction, love of being a midwife	Midwives with more than one year of experience.	Interpersonal factors: Positive relationships with women and colleagues Intrapersonal factors:

	Theory Study of why midwives stay in midwifery		AUSTRALIA			difference', 'I feel a responsibility to pass on my skills, knowledge and wisdom to the next generation'				Empathy, positive emotions improve confidence and sustainability of wellbeing
12 #1325	Midwifery workplace culture in Australia: A national survey of midwives	Catling and Rossiter 2019	Original research Women and Birth AUSTRALIA	A mixed-methods design with a quantitative survey which included qualitative responses. Australian Midwifery Workplace Culture (AMWoC)	To examine Australian midwives' perceptions of workplace culture	Themes: the ability to be a midwife, support at work, and bullying. poor workplace culture, limited resources, poor communication, time pressure, lack of leadership, inadequate staffing levels, poor management. Many midwives felt disempowered and despondent about their workplace. Others, described highly positive workplace cultures and inspiring role models. Older midwives had more positive answers. The authors did not differentiate responses that included senior midwifery staff	332 midwives 150 midwives gave qualitative responses		All career stages including managers, consultants, educators, researcher midwives	Organisational factors: Limited resources, Managerial support, working culture, lack of leadership, staffing levels Interpersonal factors: Collegial incivility Intrapersonal factors: Managing emotions and relationships
13 #281	A survey of burnout and intentions to leave the profession among Western Canadian midwives	Stoll et al 2018	Original Research Women and Birth, CANADA	Quantitative survey via the international WHELM study population	To determine the levels of levels of Burnout and intentions to leave in case-loading midwives in Canada	51/158 midwives had seriously considered leaving. 84/158 found on-call and encroachment of their personal lives. 80 considered mental and physical health (57) negatively impacted. Higher Burnout scores had higher intentions to leave. Reduction of on-calls, bullying and interprofessional conflict was aspired	158 Case-loading midwives and midwives	Attrition, Burnout and wellbeing	All career stages	Organisational factors: Midwifery practice models, Interpersonal factors: relationships: collegiality Intrapersonal factors: Management of emotions, burnout, stress
14 #364	Exposure to traumatic perinatal experiences and	Sheen et al 2015	Original research, International Journal of	National postal survey	To investigate midwives' experiences of traumatic perinatal events	402 witnessed perinatal adverse events, 308 listened to accounts of perinatal adverse events, 299 had both witnessed and listened to	421 midwives	Clinical adverse event and trauma, burnout impacts	All career stages	Intrapersonal factors: Emotional wellbeing, stress, trauma, distress

	posttraumatic stress symptoms in midwives: Prevalence and association with burnout		Nursing Studies UK			perinatal adverse events. 148 had intentions to leave, 82 did leave. 138 scored for a clinical diagnosis of PTS, this had a moderate association with emotional exhaustion (Burnout)				
15 #954	Understanding workforce experiences in the early career period of Australian midwives: insights into factors which strengthen job satisfaction	Sheehy et al 2021	Original research, Midwifery Journal AUSTRALIA	Qualitative study with in-depth semi-structured interviews, Content analysis	to explore the experiences of early career midwives' organisational, work environment, personal factors and stressors in Australian midwives	Three themes: 'Sinking and swimming', 'needing a supportive helping hand', being a midwife ... but'.	28 midwives	Wellbeing and job dissatisfaction, staying or leaving	Early career stage with 7 to 8 years post-graduation.	Organisational factors: Organisational: support, workloads, inflexibility Interpersonal factors: Relationships, support, collegiality Intrapersonal factors: Emotional and coping strategies, adaptability, competence and confidence
16+	'Midwives Overboard!' Inside their hearts are breaking, their makeup may be flaking but their smile still stays on	Pezaro et al 2016	Secondary research, Women and Birth UK	Narrative literature review,	To explore the international literature of work-related psychological distress in the midwifery populations	work-related psychological distress and stress incur maladaptive coping strategies that affect their wellbeing in the long run with increased risks of secondary traumatic stress, PTSD, burnout, horizontal violence	30 papers	Wellbeing, psychological distress	All career stages	Organisational factors: Organisational pressures and culture Interpersonal factors: Relationships: collegiality, incivility, difunctional working culture Intrapersonal factors: Managing emotions, distress, burnout, trauma, unhealthy coping strategies
17 #777	Early career midwives' perception of their teamwork skills following a specifically designed,	Hastie and Barclay 2021	Original research, Midwifery Journal AUSTRALIA	Qualitative study using in-depth, semi-structured interviews, content analysis	To investigate whether a specifically designed whole-of-degree strategy utilising groupwork assessments was effective in facilitating the development of early	One overarching theme "Becoming an Effective Team Member". Three sub-themes: 'Learning and developing Teamwork Skills'; 'More secure and confident' and 'Self-Assurance in interprofessional interactions'	20 midwives	Wellbeing and developing confidence	Early career midwives	Organisational factors: Organisational support Interpersonal factors: Relationships with mentors, peers, midwives Intrapersonal factors:

	whole-of-degree educational strategy utilising groupwork assessments				career midwives' teamwork skills					Confidence, coping strategies, emotional management
18 #1455	A socioecological model of posttraumatic stress among Australian midwives	Lienweber et al 2017	Original research, Midwifery Journal AUSTRALIA	Quantitative online survey	To develop a comprehensive model of personal, trauma event-related and workplace-related risk factors for posttraumatic stress after witnessing birth trauma among Australian midwives.	The multivariate model explained 27.7% of the variance in posttraumatic stress disorder (PTSD) and correctly classified 84.1% of cases. PTSD was strongly associated with intention to leave the profession, a peritraumatic reaction of horror, peritraumatic feelings of guilt, and a personal traumatic birth experience.	601 midwives	Wellbeing and trauma	All career stages	Organisational factors: Supportive culture and management Interpersonal factors: Collegial support Intrapersonal factors: Self-care, psychosocial management of emotions, distress tolerance
19 #1302	Catastrophic thinking: Is it the legacy of traumatic births? Midwives' experiences of shoulder dystocia complicated births	Minooee et al 2021	Original research, Women and Birth AUSTRALIA	Qualitative descriptive study design with in-depth interviews, thematic analysis	To explore the impact of Shoulder-Dystocia, as a birth trauma, on midwives' orientation	Four themes: 1) an unforgettable birth; a wake-up call, 2) from passion to caution, 3) factors worsening the experience, and 4) factors soothing the experience. Fear, anxiety and doubt about their professional competence were the most common feelings experienced by midwives	25 midwives	Wellbeing, fear, anxiety, changes in clinical practices	All career stages	Interpersonal factors: Lack of supportive, relationships with colleagues and relationships with women Interpersonal factors: Managing negative emotions of anxiety, fear, doubt, confidence, hypervigilance in practice
20+	The costs of 'being with the woman': secondary traumatic stress in midwifery	Leinweber and Rowe 2010	secondary research, Midwifery Journal AUSTRALIA	International literature review	To contribute to the conceptual development of theory about dynamics in the midwife–woman relationship in the context of traumatic birth events	High degree of empathic identification within midwife–woman relationship increases risk of secondary traumatic stress in midwives	n/a	Cost of caring, wellbeing, trauma	All career stages	Interpersonal factors: Relationships with women, Intrapersonal factors: Emotional management of fear, stress, trauma, burnout

21 #417	Posttraumatic stress symptomatology following exposure to perceived traumatic perinatal events within the midwifery profession: The impact of trait emotional intelligence	Nightingale et al 2018	Original research, Journal of Advanced Nursing UK	Quantitative cross-sectional online survey	To explore factors associated with, and predictors of, posttraumatic stress symptoms in midwives and explore factors associated with, and potential moderating effects of, trait emotional intelligence. A secondary analysis explored predictors of resilience.	Lower posttraumatic stress symptoms were associated with higher resilience and trait emotional intelligence (TEI) scores. Higher TEI was associated with high empathy, perception of social support and resilience. TEI did not moderate relationships between resilience and posttraumatic stress symptoms but instead protected midwives with higher empathy. Importantly, higher TEI and low empathy with need for support predicted resilience and the negative correlation between resilience and empathy needs careful consideration by policy maker.	113 midwives	Wellbeing, empathy and emotional intelligence	All career stages	Intrapersonal factors: Managing emotions, and distress. Developing coping skills through TEI
22 #1543	What are the characteristics of perinatal events perceived to be traumatic by midwives?	Sheen et al 2016	Original research, Midwifery Journal UK	Quantitative postal survey	To investigate the characteristics of events perceived as traumatic by UK midwives	Six themes: (1) 'event Characteristics', (2) Organisational context, (Access to resources or personnel limited or delayed). (3) Aspects relating to parents (Having an existing relationship with parents). (4) Conduct of colleagues (Overly forceful interventions, Perception that the abilities of colleagues were limited or unsatisfactory). (5) Responsibility and blame (Involvement of professional investigation). (6) Personal	421 midwives	Wellbeing and perception of trauma	All career stages	Organisational factors: Limited resources, managerial support Interpersonal factors: Supportive Collegial relationships Intrapersonal factors: Managing confidence, emotions (guilt, blame,

						salience (Attribution of blame).				
23 #348	Midwives in the United Kingdom: Levels of burnout, depression, anxiety and stress and associated predictors	Hunter et al 2019	Original research, Midwifery Journal UK	Quantitative cross-sectional survey	To explore the relationship between the emotional wellbeing of UK midwives and their work environment	Findings: emotional distress (n= 1464), Moderate to high Burnout scores (n= 1167), low burnout scores (n= 268) moderate to severe and extreme stress (n= 625), anxiety (n= 649), depression (n= 564). These scores were above other WHELM countries. Early career less than 10 years were at particular risk of emotional distress.	1997 midwives	wellbeing	All career stages	Organisational factors: Adverse working conditions in UK NHS, staffing levels, quality of care, models of care (rotational), institutional demands Intrapersonal factors: Management of personal and workplace emotions (burnout, depression, anxiety and stress)
24+	'SINK or SWIM': the experience of newly qualified midwives in England	Hughes and Fraser 2011	Original research, Midwifery Journal UK	Qualitative design, focus groups, thematic analysis	To explore newly qualified midwives' and preceptors' view of the preceptorship period	Difficulty in meeting time constraints on shifts or different clinical areas. Three themes: factors affecting preceptorship,	62 midwives	Wellbeing	40 Newly qualified, 20 preceptorship midwives, 2 practice development midwives	Organisational factors: Organisational Support Interpersonal factors: Collegial relationships Intrapersonal factors: Confidence, stress management
25+	A story of scrutiny and fear: Australian midwives' experiences of an external review of obstetric services, being involved with litigation and the impact on clinical practice	Hood et al 2010	Original research, Midwifery Journal AUSTRALIA	Qualitative explorative descriptive design, thematic analysis	To describe Australian midwives' experiences of an external review of obstetric services, involvement in legal proceedings and the impact on midwives' clinical practice and personal wellbeing.	Two themes: 'a story of scrutiny', 'a story of fear'. Subthemes of 'A cloak and dagger affair' with midwives feeling exposed, vulnerable and kept in the dark. 'Being thrown to the wolves' affecting wellbeing, feeling unsafe at work and home, fearful of relationships and practice.	16 midwives	Wellbeing, fear and anxiety	All career stages	Organisational factors: Organisational support, safety in the workplace Interpersonal factors: Managing professional relationships with colleagues and women Intrapersonal factors: Managing negative emotions, defensive practice

26+	A systematic mixed-methods review of interventions, outcomes and experiences for midwives and student midwives in work-related psychological distress.	Pezaro et al 2017	Secondary research, Midwifery Journal UK	Qualitative systematic review applying the Systematic Reviews and Meta-analyses (PRISMA) guidelines	To identify interventions designed to support midwives and/or student midwives in work-related psychological distress, and explore any outcomes and experiences associated with their use	Six wellbeing interventions with midwifery participants were identified. Three Mindfulness based programmes, two resilience-based programmes, one clinical supervision by clinical psychologists for emotional support. The author concluded that there was a lack of evidence-based interventions for midwives to address their psychological distress	6 papers	Wellbeing, psychological distress and resilience-based interventions	All career stages	Intrapersonal factors: Increased sense of wellbeing, increased self-awareness and a reduction in negative cognitions for midwives in distress
27 #635	Factors affecting midwives' confidence in intrapartum care: A phenomenological study	Bedwell et al 2015	Original research, Midwifery Journal UK	Qualitative, a hermeneutic phenomenological study, interpretive analysis underpinned by hermeneutic reflection.	To explore factors which may affect midwives' confidence in their practice.	The principal factor was collegial influences. Subthemes: 'The comfort zone' familiarity and experience, Control and autonomy, Conflict, Managing confidence, The confident performance	12 midwives	Wellbeing and confidence, coping strategies, distress, conflict, lack of support.	All career stages	Interpersonal factors Importance of supportive relationships. Collegial incivility. Intrapersonal factors Managing emotions in relationships. Building confidence, coping strategies.
28+	Relationships: The hidden threads in the tapestry of maternity care	Hunter et al 2008	Secondary publication, Midwifery Journal UK	Commentary article with reflections, insights, and expert opinions	Based on the premise that there is growing concerns internationally about the state of maternity and midwifery care	The centrality of relationships in midwifery for women and midwives. Workplace adversity, job satisfaction and retention is fundamentally the feature of the quality of relationships. improving the quality of relationships will improve the quality of maternity care. Communication skills and emotional management skills is needed but currently lacking.	n/a	Wellbeing, emotional management skills	Across all career stages	Interpersonal factors: Relationships with women and colleagues, Communication skills Intrapersonal Factors: Emotionality of care, Emotional management skills
29+	Switching and swapping faces':	Deery and Fisher 2010	Original research, Int. Journal	Qualitative Action Research approach with	to investigate the nature of emotional work carried out by midwives, to	Themes: Emotional Labour: The requirement for midwives to	11 midwives	Wellbeing, emotion work,	All career stages	Interpersonal factors: Relationships with women and colleagues,

	Performativity and emotion in midwifery		of Work Organisation and Emotion UK	in-depth interviews and Thematic analysis	understand how the reorganisation within the National Health Service (NHS) in the UK has influenced the practice of midwifery, particularly regarding the necessity to perform emotions as part of clinical practice.	manage and perform emotions as part of their professional role. Philanthropic Emotion Work: The personal commitment and empathy-driven emotional efforts made by midwives. Undervaluation of emotion work, negative repercussions on clients care, negative work environment. There is a need to improve emotional literacy of midwives.		emotional literacy		emotionality of relationships, social management Intrapersonal factors: Emotion work, Emotional Exhaustion, management of emotions, self-management, empathy, motivation
30 #468	Impact of traumatic perinatal events on burnout rates among midwives	Amir and Reid 2020	Original research, Society of Occupational Medicine IRELAND	Quantitative cross-sectional study	To establish the prevalence of burnout among midwives in Ireland and whether exposure to traumatic perinatal events contributes to burnout.	90% were exposed to a traumatic event within the last year, 58% were exposed monthly or more. Work-related burnout was 55.9, personal burnout was 56.0, patient-related burnout was 34.3. Traumatic events were not related to burnout. Instead, burnout was related to psychological distress. Burnout was also related to less experienced and very experienced midwives.	248 midwives	Wellbeing, stress, anxiety and burnout	All career stages	Intrapersonal factors: Managing unwanted emotions and distress
31 #1289	What do midwives fear?	Dahlen and Caplice, 2014	Original research, Midwifery Journal AUSTRALIA	Qualitative descriptive study and analysis from a collection of written comments from participants during a conference	To determine the top fears midwives in Australia and New Zealand hold when it comes to caring for childbearing women	Eight different fear-based topics. The highest score was death of a baby, missing or making a mistake, obstetric emergencies, maternal death, being watched and criticised.	667 midwives	Fear and	All career stages	Interpersonal factors: Being watched and criticised by others Intrapersonal factors: Fear of adverse events

32 #1918	Fighting a losing battle: Midwives experiences of workplace stress	Geraghty et al 2019	Original research, Women and Birth AUSTRALIA	Qualitative interviews via classic Glaserian grounded theory methodology	To examine the nature of midwives' work-related stress and the Implications for midwives overall emotional well-being and career decisions.	Overall theme: Midwifery is stressful, but it is not the job itself. 8 Subthemes: 'Having to be 150% on your game all the time', 'Being between a rock and a hard place whether you are coordinating or not', 'Going pear-shaped in four rooms at once', 'People not understanding what midwives go through Emotionally', 'Being an advocate in the face of medical disrespect is tough', 'Toeing the line and giving our pound of flesh', 'Having each other's backs' 'Knowing other midwives understand' 'Thinking very seriously about leaving'.	21 midwives	Wellbeing, Stress and anxiety	All career stages	Organisational factors: Managerial support, working conditions Interpersonal factors: Managing relationships with professional colleagues and women Intrapersonal factors: Managing emotions in stressful times
33	Joys and challenges of relationships in Scotland and New Zealand rural midwifery: A multicentre study	Crowther et al 2019	Original research, Women and Birth AUSTRALIA	Quantitative online survey and qualitative group discussion. Descriptive and template analysis.	To study the significance of relationships in rural midwifery and provide insights to inform midwifery education.	Focused on relationships with health organisations, each other and women and their families were both a joy and a challenge. Social capital was a principal theme. Subthemes were (a) working relationships, (b) respectful communication, (c) partnerships, (d) interface tensions, (e) gift of time facilitates relationships	77 Scottish midwives and 145 New Zealand midwives.	Wellbeing and importance of relationships	All career stages	Organisational factors: Workloads and managerial support Interpersonal Factors: Managing relationships with colleagues and maternity professionals including women and families Intrapersonal factors: Managing emotions with respect and effective communication
34 #783	Trauma and fear in Australian midwives	Tollhill et al 2019	Original research, Women and Birth AUSTRALIA	Quantitative Online survey and qualitative responses Mixed method design	To determine prevalence of birth related trauma and fear in midwives and associations with midwives' confidence to advise women during	93.6% reported professional and/or personal experiences of trauma with 8% reporting severe fear of birth. Trauma was not associated to practice but fear was.	249 midwives	Wellbeing, trauma and fear	All career stages	Interpersonal factors: Collegial support Intrapersonal factors: Managing unwanted emotions and distress

					pregnancy of their birth options and to provide care in labour. To describe midwives' experiences of birth related trauma and/or fear	personal trauma included experiencing assault, intervention and stillbirth. Professional trauma related to both witnessing and experiencing disrespectful care and subsequently feeling complicit in the provision of poor care. Feeling unsupported in the workplace and fearing litigation intensified trauma				
35+	Emotion work and boundary maintenance in hospital-based midwifery.	Hunter 2005	Original research, Midwifery Journal UK	Qualitative ethnographic study with focus groups, thematic analysis.	To identify and explore the emotion work of hospital-based midwives	Emotion-work was an influenced by the context of practice. Relationships with midwifery colleagues were of key importance and negotiating these relationships was a source of emotion work and conflict between junior and senior midwives.	27 ECM and 10 midwives	Wellbeing and Emotion work	Junior and senior midwives	Interpersonal factors Collegial relationship and support, hierarchy Intrapersonal factors Management of emotions, emotion work. Skills of negotiating relationships
36+	Shift length and working practices in UK hospital settings: An online survey of heads of midwifery	Dent 2020,	Original research, Midwifery Journal UK	Quantitative online survey	To determine the prevalence of 12-h shifts and current working practices of hospital-based midwives	12-hour shift were most prevalent pattern of work, only 4.1% routinely had short-shifts. 55.67% of midwives had 24-h rest between night to day shifts, 68% record missed rest-breaks. 70% did not record excess working hours.	94 NHS Trusts	Wellbeing and Shift-patterns	All career stages	Organisational factors: Shift- patterns Working beyond contracted hours
37 #223	Is it shift length or working practices that most affect midwives' wellbeing and ability to	Dent 2018	Secondary publication, British Journal of Midwifery UK	Review article	To explore and evaluate the impact of shift length and working practices on midwives' wellbeing and their ability to safely deliver care.	Work-Related Stress Among Midwives is impacted by shift length. Longer shifts are associated with greater fatigue, emotional exhaustion, and burnout. These impact the quality of care and job-satisfaction.	N/A	Wellbeing and shift patterns. Job-satisfaction	All career stages	Organisational factors: Working patterns, workloads. Sustainability of midwifery staff

	safely deliver care?									
38	How do new midwives' early workforce experiences influence their career plans? An integrative review of the literature	Capper et al 2023	Secondary research, Nurse Education in Practice AUSTRALIA	Integrative literature review and thematic analysis	To explore how the early workforce experiences of new midwives influence their career plans	Three themes: 'the need for support', 'sustaining health and wellbeing', and 'being able to provide safe and effective midwifery care	19 papers	Wellbeing, retention, sustainability	Early career midwives (< 5 years experience)	Organisational factors: Safe working environment, support, fragmented care models, excessive workloads Interpersonal Factors: Building strong relationships with women and colleagues Intrapersonal factors: Sustaining personal wellbeing, Emotional management, stress, anxiety, burnout, passion for midwifery,
39	Moral distress in midwifery practice: A Delphi study	Foster et al 2023	Original research, Women and Birth AUSTRALIA	The third stage of a sequential exploratory mixed-methods study: e-Delphi study	To develop a list of situational and outcome statements associated with moral compromise and levels of moral distress in midwifery to inform the development of a tool to measure levels of moral distress in midwives	40 morally compromising situation statements with consensus on outcomes following exposure to morally distressing situations led to the development of a continuum scale from moral frustration to moral injury.	20 midwives	Wellbeing, moral distress	All career stages	Organisational factors: Heavy workloads, leadership support, Interpersonal factors: Managing relations, collegiality Intrapersonal factors: Emotional management
40	The importance of recovery and staffing on midwives' emotional wellbeing: A UK national survey	Dent et al 2024	Original research, Midwifery Journal UK	Quantitative and qualitative, the Copenhagen Burnout Inventory (CBI) and qualitative follow-up questionnaire.	To explore the association of individual characteristics, work-related factors and working practices on emotional wellbeing outcomes of UK midwives.	12-h to 12.5-h shifts were most common, higher on-call for CoC than community midwives, 88 % rarely or never finished their shifts on time and 75 % were unable to take all. their allocated rest breaks high Workloads, staffing	2347 midwives	Wellbeing and working patterns	All career stages	Organisational factors: Shift-patterns, workloads, staffing levels, rest breaks Intrapersonal factors: Burnout, exhaustion, stress,

				Univariate, Inferential, and multivariable analysis		issues and paperwork were reasons given. High levels of work stress, burnout				
41	Understanding attrition of early career midwives in Australia	Donnelly et al 2024	Original research, Women and Birth AUSTRALIA	Qualitative interviews, thematic analysis.	To understand the professional and social circumstances that led early career midwives to leave clinical practice	Three themes: Transition to professional practice, An untenable workplace culture, and Mental health impacts of early clinical midwifery practice.	11 midwives	Wellbeing,	Early career (< 5 years from registration)	Organisational factors: Pressurised maternity service, lack of support, inflexible rosters, Interpersonal factors: Managing relationships, collegial incivility, support, Intrapersonal factors: Managing emotions, fear, fear of making mistakes, anxiety, exhaustion, hypervigilance, depression
42	A cross-sectional survey of the mental health of midwives in Ontario, Canada: Burnout, depression, anxiety, stress, and associated factors	Cates et al 2024	Original research, Women and Birth CANADA	Quantitative cross-sectional survey: Copenhagen Burnout Inventory, the Depression, Anxiety and Stress Scale.	To assess levels of stress, anxiety, depression, and burnout among midwives in Ontario	More than 50% reported Burnout, stress, anxiety, and depression. CBI results showed 70% with moderate to high personal burnout, of which 68% was work-related burnout and 40% was client-related burnout. midwife with a disability, the inability to work off-call, and having taken a prior mental health leave. Midwives with < 10 years' experience were more at risk	275 midwives	Wellbeing, burnout, anxiety and depression	All career stages	Organisational factors: High working demands, poor work-life balance Intrapersonal factors: Mental wellbeing and poor mental health, managing emotions
43	A global overview of midwives' working conditions: A rapid review of literature on positive	Carvajal et al 2024	Secondary research, Women and Birth UK	Rapid literature review	To describe midwives' perceptions and experiences of positive practice environments	Although mostly negative and suboptimal and challenging working conditions, safe and respectful care and working conditions, supportive culture, clear definition of role, positive working relationships, psychological	70 papers	Wellbeing	All career stages	Organisational factors: Safe, respectful, flexible, supportive working conditions Interpersonal factors: Positive and supportive relationships

	practice environment					well-being strategies, organisational support, fair salary				Intrapersonal factors: Psychological well-being strategies
44	What is known about midwives' well-being and resilience? An integrative review of the international literature	Moran et al 2023	Secondary research, Birth AUSTRALIA	Systematic Integrative review	To investigate and synthesize the extant international knowledge on midwives' well-being and resilience in the context of workplace stress and adversity	Three core themes: (1) risk factors and adversity; (2) protective factors and resilience; and (3) sustaining factors and well-being in midwifery there is a lack of uniformity and cohesion in the terms of resilience and wellbeing. Workplace adversity impacts midwives resilience and wellbeing.	12 papers	Wellbeing and resilience, Workplace adversity	All career stages	Organisational factors: Support, structural hierarchy, poor working culture, poor work-life balance, Interpersonal factors: Working relationships, support, collegial incivility Intrapersonal factors: Emotion work, clinical adverse events, distress, fear, trauma, anxiety, clinical errors, Positive intrapersonal factors: sense of self, a sense of coherence, altruism, optimism, pride, self-esteem
45	'Doing' is never enough, if 'being' is neglected. Exploring midwives' perspectives on the influence of an emotional intelligence education programme, a	Tabib et al 2024	Original research, Women and Birth AUSTRALIA	Qualitative descriptive approach with focus groups and Reflexive thematic analysis	To explore midwives' perspectives on the influence of the Emotional Intelligence education programme on their emotional wellbeing and experiences of practice in the UK	6 session EI programme (24-h) Core theme: 'The Ripple Effect'. Three further themes: 'Me and my relationships', 'A different approach to practice' and 'Confidence and empowerment'. The EI intervention influenced midwives' approach to practice, enhanced their empathy, confidence. Improved awareness of management of	13 midwives	Wellbeing and emotion regulation	All career stages	Interpersonal factors: Social management of relationships Intrapersonal factors: Self-awareness, emotion regulation, self-management,

	qualitative study					relationships and self-management of emotions.				
46	Giving of the self and Midwife Burnout – An exploration of the consequences of being 'with woman' and how individual midwives can reduce or prevent burnout	Doherty and O'Brien 2023	Original research, Women and Birth IRELAND	Qualitative, Participatory Action Research study and Thematic Network Analysis	To explore the concept of burnout with midwives and to ascertain their perspectives on how burnout can be reduced	Midwives require high levels of self-awareness to navigate the demands of their professional work which risk their susceptibility to developing burnout. They must utilise their own positive coping mechanisms. Therefore, positive coping mechanisms, self-awareness and basic self-care skills are needed.	21 midwives	Wellbeing and burnout prevention	All career stages	Intrapersonal Factors: positive coping mechanisms, self-awareness and basic self-care skills
47+	Work, Health and Emotional Lives of Midwives in the United Kingdom: The UK WHELM Study	Hunter et al. 2017	Original research, RCM	Online survey, The WHELM survey tool	To explore the relationship between the emotional wellbeing of UK midwives and their work environment	83% personal burnout, 67% work-related burnout, 15.5% client-related burnout (the highest in WHELM global studies). 36.7% had moderate/severe/extreme stress, 38% had anxiety, 33% had depression, ECMs, or less than 30 years of experience, rotational, limited resources, low managerial support had higher risk of burnout	1997 midwives	Wellbeing, stress, burnout, anxiety	All career stages and ECM	Organisational factors: Limited resources, workloads, low managerial support. Culture. Interpersonal Factors: Supportive relationships, collegial incivility. Intrapersonal factors: Managing unwanted emotions, Stress, anxiety and burnout

Coding Framework Analysis: Thematic Allocation of Included Studies

This table presents a summary of the initial coding framework applied during thematic analysis. Each study was mapped to one or more of the 17 descriptive themes developed through data charting. These themes represent recurring concepts across the dataset and informed the synthesis into broader domains (organisational, midwifery care, clinical practice, interpersonal, and intrapersonal factors).

Table A4. Coding Framework Analysis chart

	References	Job-satisfaction	Workplace adversity	ECM	Retention	Organisational factors: Non-modifiable							Interpersonal and Intrapersonal factors: Modifiable					
						Organisational working conditions and support	Workloads	Poor work-life balance	Shift work and flexibility	Emotionality of relationships (with-woman)	trauma	Autonomy, control agency	Fear, guilt blame shame	Emotion work	Managing professional relationships	Culture, bullying	Resilience	Coping strategies
1	Hunter 2001									√				√	√			
2	Harvie et al. 2019	√	√	√	√	√	√	√					√		√	√		
3	Hunter and Warren 2014		√			√									√		√	
4	Cull et al 2020		√	√		√									√			
5	Ball et al 2003	√	√		√	√	√	√				√			√	√		
6	Cramer and Hunter 2019	√	√		√	√	√		√	√		√		√	√	√		
7	Creedy et al 2017					√									√	√		
8	Crowther et al 2016					√		√								√		
9	Catling et al 2017					√									√	√		
10	Fenwick et al 2018					√	√	√	√	√					√	√		
11	Bloxsome et al 2019	√			√					√					√			
12	Catling and Rossiter 2019	√	√			√	√					√			√	√		
13	Stoll et al 2018	√	√		√	√									√	√		
14	Sheen et al 2015				√						√							
15	Sheehy et al 2021				√							√				√		

16	Pezaro et al 2016		✓												✓	✓		✓
17	Hastie and Barclay 2021			✓											✓			
18	Lienweber et al 2017		✓		✓						✓							
19	Minooee et al 2021					✓							✓		✓			
20	Leinweber and Rowe 2010										✓		✓					
21	Nightingale et al 2018										✓						✓	✓
22	Sheen et al 2016					✓				✓			✓		✓	✓		
23	Hunter et al 2019	✓	✓		✓	✓		✓				✓			✓	✓		✓
24	Hughes and Fraser 2011			✓		✓				✓			✓		✓			
25	Hood et al 2010			✓		✓				✓			✓		✓			
26	Pezaro et al 2017																✓	✓
27	Bedwell et al 2015											✓			✓			
28	Hunter et al 2008		✓		✓					✓					✓			✓
29	Deery and Fisher 2010									✓				✓	✓			✓
30	Amir and Reid 2020										✓							
31	Dahlen and Caplice, 2014												✓			✓		
32	Geraghty et al 2019				✓	✓	✓			✓					✓	✓		
33	Crowther et al 2019											✓			✓	✓		✓
34	Tollhill et al 2019										✓		✓					
35	Hunter 2005			✓								✓		✓	✓			✓
36	Dent 2020,					✓		✓	✓									
37	Dent 2018					✓		✓	✓									
38	Capper et al 2023			✓	✓	✓							✓					
39	Foster et al 2023						✓				✓		✓		✓			
40	Dent et al 2024					✓		✓	✓									
41	Donnelly et al 2024			✓	✓	✓			✓							✓		
42	Cates et al 2024					✓		✓	✓									
43	Carvajal et al 2024	✓	✓		✓	✓										✓		✓
44	Moran et al 2023		✓		✓												✓	
45	Tabib et al 2024									✓	✓	✓			✓		✓	✓
46	Doherty and O'Brien 2023																✓	✓
47	Hunter et al. 2017	✓	✓	✓	✓	✓	✓	✓	✓									
Totals		9	14	9	16	25	8	10	8	11	8	9	10	4	27	18	6	11

Thematic Categorisation Table.

Mapping of included studies to thematic categories used in the synthesis. Each study is assigned to one or more of the five overarching domains: organisational, midwifery care, clinical practice, interpersonal, and intrapersonal factors.

Table A5. Categorisation of Modifiable and Non-Modifiable Factors Affecting Midwives' Well-being and Resilience

Consolidation categories	subcategories	Key references	Notes
Non-modifiable (immutable environment or system)			
Organisational working conditions and support Retention Workloads Poor work-life balance Shiftwork and flexibility	Structural	2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 22, 23, 24, 25, 26, 27, 28, 29, 33, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 48	Structural employment Organisational factors primarily consist of structural elements within the workplace that midwives cannot alter individually.
Midwifery care Emotion work	Relational	1, 6, 10, 11, 22, 24, 25, 28, 29, 30, 33, 46	Focus on Client relations Midwifery care is integral to the role of midwives and involves relational dynamics that are inherent to their practice.
Clinical practice Cost of Caring trauma	Management of risk	14, 18, 20, 21, 31, 35, 40, 46	Adverse events Clinical practice factors are concerned with the management of risks and handling of trauma associated with adverse events in clinical settings. These are inherent risks that come with the clinical responsibilities of midwives.
Modifiable (personal contingency)			
Intrapersonal Fear, guilt blame shame Emotion work Coping strategies Resilience Autonomy, control agency	Management of emotional self	1, 2, 3, 16, 21, 23, 26, 29, 30, 32, 34, 35, 36, 39, 40, 44, 45, 46, 45	Emotion Regulation Abilities coping strategies Awareness Recognising and perceiving Facilitation of thoughts Self-management Distress tolerance
Interpersonal Managing professional relationships Culture, bullying	Relationships effectiveness	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 19, 21, 22, 23, 24, 25, 27, 28, 29, 30, 32, 33, 34, 36, 40, 42, 44, 46	Emotion Regulation Abilities Perception, facilitation Interpersonal effectiveness Social management

Table A6. Common Concepts

Non-modifiable factors	Modifiable factors	
Organisational factors	Interpersonal factors	Intrapersonal factors
Working conditions Workloads Poor work-life balance Shiftwork, flexibility Emotionality of care with women Risk of trauma Autonomy, Agency, control	Collegial support Managing professional Relationships Collegiality, incivility	Emotion work Fear, guilt, blame, shame Compassion Empathy Burnout Distress Confidence

Table A7 Themes and corresponding 47 papers from the scoping review

Themes	Corresponding Papers
Job-satisfaction	Harvie et al. 2019, (2) Ball et al 2003, (5) Cramer and Hunter 2019, (6) Bloxsome et al 2019, (42) Catling and Rossiter 2019, (12) Stoll et al 2018, (13) Hunter et al 2019, (23) Carvajal et al 2024, (43) Hunter et al. 2017, (47)
Workplace adversity	Harvie et al. 2019, (2) Hunter and Warren 2014, (3) Cull et al 2020, (4) Ball et al 2003, (5) Cramer and Hunter 2019, (6) Catling and Rossiter 2019, (12) Stoll et al 2018, (13) Pezaro et al 2016, (16) Lienweber et al 2017, (18) Hunter et al 2019, (23) Hunter et al 2008, (28) Carvajal et al 2024, (43) Moran et al 2023, (44) Hunter et al. 2017, (47)
ECM	Harvie et al. 2019, (2) Cull et al 2020, (4) Hastie and Barclay 2021, (17) Hughes and Fraser 2011, (24) Hood et al 2010, (25) Hunter 2005, (35) Capper et al 2023, (38) Donnelly et al 2024, (41) Hunter et al. 2017, (47)
Retention	Harvie et al. 2019, (2) Ball et al 2003, (5) Cramer and Hunter 2019, (6) Bloxsome et al 2019, (11) Stoll et al 2018, (13) Sheen et al 2015, (14)

	Sheehy et al 2021, (15) Lienweber et al 2017, (18) Hunter et al 2019, (23) Hunter et al 2008, (28) Geraghty et al 2019, (32) Capper et al 2023, (38) Donnelly et al 2024, (41) Carvajal et al 2024, (43) Moran et al 2023, (44) Hunter et al. 2017, (47)
Organisational working conditions and support	Harvie et al. 2019, (2) Hunter and Warren 2014, (3) Cull et al 2020, (4) Ball et al 2003, (5) Cramer and Hunter 2019, (6) Creedy et al 2017, (7) Crowther et al 2016, (8) Catling et al 2017, (9) Fenwick et al 2018, (10) Catling and Rossiter 2019, (12) Stoll et al 2018, (13) Minooee et al 2021, (19) Sheen et al 2016, (22) Hunter et al 2019, (23) Hughes and Fraser 2011, (24) Hood et al 2010, (25) Geraghty et al 2019, (32) Dent 2020, (36) Dent 2018, (37) Capper et al 2023, (38) Dent et al 2024, (40) Donnelly et al 2024, (41) Cates et al 2024, (42) Carvajal et al 2024, (43) Hunter et al. 2017, (47)
Workloads	Harvie et al. 2019, (2) Ball et al 2003, (5) Cramer and Hunter 2019, (6) Fenwick et al 2018, (10) Catling and Rossiter 2019, (12) Geraghty et al 2019, (32) Foster et al 2023, (39) Hunter et al. 2017, (47)
Poor work-life balance	Harvie et al. 2019, (2) Ball et al 2003, (5) Crowther et al 2016, (8) Fenwick et al 2018, (10) Hunter et al 2019, (23) Dent 2020, (36) Dent 2018, (37) Dent et al 2024, (40) Cates et al 2024, (42) Hunter et al. 2017, (47)
Shiftwork and flexibility	Cramer and Hunter 2019, (6) Fenwick et al 2018, (10) Dent 2020, (36) Dent 2018, (37) Dent et al 2024, (40) Donnelly et al 2024, (41) Cates et al 2024, (42) Hunter et al. 2017, (47)
Emotionality of relationships (with-woman)	Hunter 2001, (1) Cramer and Hunter 2019, (6) Fenwick et al 2018, (10) Bloxsome et al 2019, (11) Sheen et al 2016, (22) Hughes and Fraser 2011, (24) Hood et al 2010, (25) Hunter et al 2008, (28) Deery and Fisher 2010, (29) Geraghty et al 2019, (32) Tabib et al 2024, (45)
trauma	Sheen et al 2015, (14)

	Lienweber et al 2017, (18) Leinweber and Rowe 2010, (20) Nightingale et al 2018, (21) Amir and Reid 2020, (30) Tollhill et al 2019, (34) Foster et al 2023, (39) Tabib et al 2024, (45)
Autonomy, control agency	Ball et al 2003, (5) Cramer and Hunter 2019, (6) Catling and Rossiter 2019, (12) Sheehy et al 2021, (15) Hunter et al 2019, (23) Bedwell et al 2015, (27) Crowther et al 2019, (33) Hunter 2005, (35) Tabib et al 2024, (45)
Fear, guilt blame shame	Harvie et al. 2019, (2) Minooee et al 2021, (19) Leinweber and Rowe 2010, (20) Sheen et al 2016, (22) Hughes and Fraser 2011, (24) Hood et al 2010, (25) Dahlen and Caplice, 2014, (31) Tollhill et al 2019, (34) Capper et al 2023, (38) Foster et al 2023, (39)
Emotion work	Hunter 2001, (1) Cramer and Hunter 2019, (6) Deery and Fisher 2010, (29) Hunter 2005, (35)
Managing professional relationships	Hunter 2001, (1) Harvie et al. 2019, (2) Hunter and Warren 2014, (3) Cull et al 2020, (4) Ball et al 2003, (5) Cramer and Hunter 2019, (6) Creedy et al 2017, (7) Catling et al 2017, (9) Fenwick et al 2018, (10) Bloxsome et al 2019, (11) Catling and Rossiter 2019, (12) Stoll et al 2018, (13) Pezaro et al 2016, (16) Hastie and Barclay 2021, (17) Minooee et al 2021, (19) Sheen et al 2016, (22) Hunter et al 2019, (23) Hughes and Fraser 2011, (24) Hood et al 2010, (25) Bedwell et al 2015, (27) Hunter et al 2008, (28) Deery and Fisher 2010, (29) Geraghty et al 2019, (32) Crowther et al 2019, (33) Hunter 2005, (35) Foster et al 2023, (39) Tabib et al 2024, (45)
Culture, bullying	Harvie et al. 2019, (2) Ball et al 2003, (5) Cramer and Hunter 2019, (6) Creedy et al 2017, (7) Crowther et al 2016, (8) Catling et al 2017, (9) Fenwick et al 2018, (10) Catling and Rossiter 2019, (12) Stoll et al 2018, (13) Sheehy et al 2021, (15) Pezaro et al 2016, (16) Sheen et al 2016, (22) Hunter et al 2019, (23) Dahlen and Caplice, 2014, (31) Geraghty et al 2019, (32) Crowther et al 2019, (33)

	Donnelly et al 2024, (41) Carvajal et al 2024, (43)
Resilience	Hunter and Warren 2014, (3) Nightingale et al 2018, (21) Pezaro et al 2017, (26) Moran et al 2023, (44) Tabib et al 2024, (45) Doherty and O'Brien 2023, (46)
Coping strategies	Pezaro et al 2016, (16) Nightingale et al 2018, (21) Hunter et al 2019, (23) Pezaro et al 2017, (26) Hunter et al 2008, (28) Deery and Fisher 2010, (29) Crowther et al 2019, (33) Hunter 2005, (35) Carvajal et al 2024, (43) Tabib et al 2024, (45) Doherty and O'Brien 2023, (46)

