Barriers and Facilitators to the uptake of healthy eating messages by Black African Immigrant pregnant women living in the UK: Perspectives of women and midwives

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September 2022

A thesis presented in partial fulfilment of the requirement of Bournemouth University for the degree of Doctor of Philosophy

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Copyright Statement

Abstract

Background

Research shows that modifying health behaviours such as dietary behaviour can have a huge impact on pregnancy outcomes and be protective against obesity and other metabolic disorders. Despite midwives being strategically placed to offer healthy eating advice in pregnancy and the existence of pregnancy healthy eating guidelines, obesity statistics still show that Black pregnant women in the United Kingdom (UK) make up about 66.6% of the obesity population in pregnancy and have an increased risk of gestational diabetes and hypertension. At the moment, there is limited data on healthy eating adherence and healthy eating interventions in pregnancy for this group in the UK. This study therefore explored the uptake and offer of healthy eating messages by Black African immigrant pregnant women in the UK and midwives who provide their care.

Methods

Using the methodological principles of the Constructivist Grounded Theory (CGT), twenty-six semi-structured interviews were conducted with pregnant women and midwives. Participants were recruited using convenience sampling and snowballing from NHS Trusts and the community in the South of London. Data was analysed using constant comparative analysis towards the development of a substantive theory.

Findings

A substantive theory: "*the concept of identity, the black immigrant woman*" explained the intersecting identities of the Black immigrant woman whilst trying to navigate healthy eating needs and the antenatal care system in the UK. The theory explained how categories which emerged from the analysis such as: "shifting cultural landscape", "negotiating for help", "blending in", "meeting healthy eating needs", "there are cultural needs", "hard to engage" and "system" acted as barriers and facilitators to receiving and offering healthy eating advice.

Conclusion

The findings highlight the importance of the intersecting identities of the Black Immigrant pregnant woman and its influence on healthy eating needs and navigating the antenatal care system. Understanding, the concept of identity for these women is an important step towards supporting their healthy eating needs and their transition in the antenatal care system and the society in general.

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Acknowledgement

All I have needed, thine Hands hath provided. My heartfelt gratitude goes first to the Almighty God, who has provided all that I have ever needed. I acknowledge your faithfulness throughout this journey.

I am profoundly grateful to my supervisors, Dr Jaqui Hewitt-Taylor, Dr Pramod Regmi and Dr Juliet Wood for their unwavering support, expert guidance, constructive criticism, and words of encouragement through this process. I am particularly grateful for the courage instilled in me and for never making me feel that I was less than capable. Thank you, Jaqui, for all the man hours, I truly appreciate.

I appreciate the help of the lovely Black African pregnant women and midwives who consented and took their time to share their stories, without you, there would be no story. I also appreciate the help of the lovely community gatekeepers and gatekeepers within the NHS Trusts for facilitating the participant recruitment for this study.

To Bournemouth University, it has been an amazing few years and I am grateful for the resources. I would also like to extend my gratitude to my colleagues; the occupants of room 206, 406 and other PGR's, who became my friends through this journey. Thank you for your openness, signposting, and the many discussions. Special thank you to Charlotte, Raysa and Ogochukwu, the journey could have very well been near impossible without your constant encouragement and support. My sincere appreciation also goes to Tina and other staff at Doctoral college, for always being available when I required support.

I am also very grateful for my community, Citygate church, my cell group and DNA (Siju and Elecia), my friends (Nkiru, Deby, Mary, Lucy, Emem) for their prayers, phone conversations and help with childcare. Most grateful for my extended family (mum and siblings especially Inimfon, Emem and Papa) for their constant support. I especially thank Inimfon (my sister and my friend), for her constant help and motivation, for helping with childcare and ranting needs; you are simply the best.

To my extended network of friends and family; Ifiok, Uduak and Uwem (in-laws) and friends, Bolaji and Gemma, you lot are one of best people that I have met, and I sincerely appreciate your support and friendship.

To my children, Daniel, Dora and Divine, it's been the best and the worst of times. Thank you for your patience and support at all times. I have a deeper understanding of motherhood because of all of you. I love you guys so much.

Finally, my special appreciation goes to my husband, Iby, for constantly supporting me, and for creating a suitable environment both financially and emotionally. Thank you for everything that you do for me and for us, you are greatly loved and appreciated.

Author's declaration

Paper 1 (Systematic review 2-prepared for submission)

Sociocultural influences on dietary behaviours of Black African women in High-Income countries- a systematic review

PhD student's contribution: First and corresponding author, drafted and compiled the manuscript, developed search strategy, conducted search, critically appraised selected studies, theme identification and synthesis, manuscript revision based on co-authors' comments

Paper 2 (Published-MIDIRS digest)

Barriers and facilitators to the recruitment of Black African women for research in the UK: hard to engage and not hard to reach

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PhD student's contribution: First and corresponding author, co-developed the study with supervisory team, developed methodology, recruited participants for own study, conducted data collection and analysis for own study, drafted manuscript, revised manuscript based on other co-authors comments, submitted manuscript to journal, revised manuscript based on journals requirements and managed the submission process.

Chapter 1 Thesis Introduction

1.1 **Overview**

“A paradox lies at the heart of public health in modern Britain. Britain is now healthier as a whole than it has ever been in its history. As the benefits of both a preventive approach to public health and advances in treatment bear fruit, life expectancy rises and some of the world's deadliest diseases decline. At the same time, health inequalities continue to be a persistent issue. While the overall health of the population improves, the health of the poor and less well-off either improves more slowly than the rest of the population or worsens in some cases. This is a test for policymakers and practitioners alike. It implies that, while some of our policies and interventions undoubtedly work, they also manifestly fail some sections of the population”.

Health inequalities: concepts, frameworks, and policy (Graham and Kelly 2004, p.1).

This thesis explores the perspective of Black African immigrant pregnant women (BAIP) living in the United Kingdom (UK) on the uptake of healthy eating advice offered during pregnancy. This study also explores midwives' views around offering healthy eating advice to these women. It is essential to gain an insight into the factors that influence these women's engagement with healthy eating advice. This is due to the inequalities in health concerning the Black African immigrant population, where there is a higher prevalence of obesity, gestational diabetes, gestational hypertension, and an increased risk of mortality, morbidity, and adverse outcomes in pregnancy. Behavioural/lifestyle factors such as healthy eating modification may improve these outcomes. Therefore, understanding Black African women's perception of healthy eating advice offered during pregnancy and midwives' perspectives around offering healthy eating advice can contribute to improved understanding and development of lifestyle/healthy eating interventions particularly targeted at this population.

A constructivist grounded theory approach (Charmaz 2014) (CGT) was adopted to provide a theoretical understanding of BAIP women's engagement with healthy eating advice in pregnancy. CGT was also used to improve understanding of midwives' perspectives on offering healthy eating advice to this population. The study recruited Black African immigrant pregnant women and midwives from NHS Trusts and within the community in south London. Theoretical analysis was carried out using constant comparative methods to generate theoretical explanations about the factors that influence women's uptake of healthy eating

messages and factors that influence midwives' offer of healthy eating messages to these women. This thesis commences with an introductory chapter which outlines my research study and my professional and personal influence on this research, gives an overview of healthy eating and reflects on migration patterns from sub-Saharan Africa to the UK. It is followed by chapter 2, which explores healthy eating in pregnancy. The chapter is divided into two parts. Part one is a systematic review which explores the challenges and facilitators of healthy eating in pregnancy from the perspective of pregnant women. Part two explored the sociocultural influences on dietary behaviours of Black African women in the UK. Chapter Three considers grounded theory and its application to my current research methods and methodology, which are also described. The findings are presented in Chapters Four and Five, while Chapter Six consolidates the findings and presents the developed theory. Chapter Seven is the discussion, implications for practice and recommendations chapter. Additionally, Chapter Eight is the reflexive chapter which explores my learning throughout the research process, contributions to knowledge, dissemination, and thesis conclusion.

1.2 Why pregnancy?

Pregnancy nutrition is critical to improving population health and attaining the United Nations (UN) Sustainable Development Goals to reduce hunger and promote good health and wellbeing (UN 2016). Improving maternal nutrition during pregnancy is vital for improving child health outcomes and protecting women's health during and after childbirth. Inadequate or excess intake of nutrients during pregnancy can affect foetal programming and may predispose children to non-communicable and metabolic diseases later in life (Kwon and Kim 2017; Wells et al. 2020). Excess maternal intake of macronutrients such as carbohydrates can lead to maternal hyperglycaemia, which might lead to increased foetal growth or macrosomia (Scholl et al. 2001; Hay Jr 2006; Killeen et al. 2022). Macrosomia is said to increase the risk of infant hypoglycaemia, increase risks for caesarean deliveries for mothers and is a predisposing factor for obesity in later life (Kleinman 2000; Gu et al. 2012; Alavi et al. 2013; Langley-Evans 2015; Poston et al. 2016; Beta et al. 2019). Inadequate maternal energy contributes directly to low birth weight in infants through intrauterine growth restriction and increases the risk of preterm birth (Han et al. 2011). Foetal macrosomia and low birth weight increase the risks of type 2 diabetes in later life (Savona-Ventura and Chircop 2003). Furthermore, inadequate micronutrients such as Vitamin B12, calcium, iron, vitamin D and folic acid may predispose women to deficiency and its complications during pregnancy. For instance, low maternal stores of iron and calcium can increase the risks of anaemia in pregnancy(Peace and Banayan 2021) and pregnancy-induced hypertension (Gomes et al. 2022). In the long run, calcium deficiency may lead to further bone disease

complications in the mother (Kovacs 2016). Folate deficiency has been associated with neural tube defects in children, and this is the basis for folic acid supplementation in pregnancy(Group 1991; Black 2008). Deficiencies of iodine and iron have been associated with impaired cognitive outcomes and stunting(Black 2008).

Additionally, maternal weight gain can lead to postpartum weight retention, leading to overweight/obesity (Phelan 2010). Obesity has been termed a public health concern, and postpartum weight retention has been indicated as the leading cause of obesity in women of childbearing age (Phelan 2010). There has been a consistent increase in maternal obesity rates worldwide and more so in the UK (Thanoon et al. 2015). It is therefore essential to attach importance to nutrition in utero, throughout the life course and trans generationally.

1.3 Study focus

Black women make up 66.6% of the obese population in pregnancy in the UK (Public Health England (PHE) 2019). Black African pregnant women especially from West African countries like Nigeria and Cameroon have an increased risk of developing iron deficiency in pregnancy added to the increased burden of Vitamin D deficiency (Ayoya et al. 2012; Lindsay et al. 2014; Van der Pligt et al. 2018; Zegeye et al. 2021). Additionally, a recent Maternal, Newborn and Infant clinical Outcome Review (MBRACCE) report indicated that Black African women living in the UK are five times more likely to die in pregnancy from all causes than their Caucasian counterparts (Knight et al. 2018). In addition, Black African women have an increased risk of developing gestational diabetes and hypertension (Flanders-Stepans 2000; Knight et al. 2019). Complicating these further, there are reports of post-migration issues in the UK such as inequalities in maternal care and access (Henderson et al. 2013; Higginbottom et al. 2019; Peter and Wheeler 2022), problems with discrimination, communication barriers and racism (Higginbottom et al. 2019). Black African women in the UK are more likely than not to deliver by emergency caesarean section (Henderson et al. 2013). A recent study reported that recently immigrated women were more likely than not to show a lack of understanding of the health care system in the UK (Kapadia et al. 2022), thereby further increasing their risks of adverse pregnancy outcomes. It is therefore paramount to explore the uptake of health behaviours such as dietary and physical activity behaviours that have the potential to mitigate these risks, improve health outcomes and bridge the health inequality gap. This study will focus solely on dietary behaviours.

Healthy eating guidelines have been provided in many countries and especially in the UK, and midwives are well placed to offer healthy eating advice during pregnancy (NICE 2010). However, studies have shown that many pregnant women do not adhere to healthy eating recommendations during pregnancy (Malek et al. 2016a; Bookari et al. 2017a; Grenier et al.

2021). Furthermore, data on adherence is limited for countries such as the UK., especially when delineated according to ethnicity.

Evidence however suggests that healthy eating can reduce obesity and improve maternal and neonatal outcomes (Oteng-Ntim et al. 2012; Thangaratinam et al. 2012; Gresham et al. 2014; Poston et al. 2015; Gresham et al. 2016; Dalrymple et al. 2018; Shieh et al. 2018) as well as improve gestational diabetes and gestational hypertension outcomes (Gresham et al. 2016). Therefore, understanding the factors that influence the uptake of healthy eating advice amongst Black African immigrant pregnant (BAIP) women may contribute to reducing the rate of maternal obesity and incidences of gestational diabetes and gestational hypertension in this population, and improve maternal outcomes in pregnancy.

Studies evaluating the challenges and facilitators to healthy eating in pregnancy in the UK mainly targeted at Black African immigrant women are scarce. Several reviews (Vanstone et al. 2017; Kavle and Landry 2018; Ngongalah et al. 2018) including the literature review in chapter two, have evaluated the challenges and facilitators to healthy eating in the general pregnancy population. Most studies that recruited Black African women were conducted in the United States (U.S) and pointed to the general Black population (African Americans) (Groth et al. 2012a; Herring et al. 2012; Ferrari et al. 2013; Goodrich et al. 2013; Groth and Morrison-Beedy 2013; Reyes et al. 2013; Hackley et al. 2014; Anderson et al. 2015; Chang et al. 2015; Groth et al. 2016). Although there is an inclination in literature to define Black women as a whole homogenous ethnic group, there are differences within the ethnic groups that relate to countries of origin and even tribes that could affect behaviour (Agyemang et al. 2005). The term ‘black’ refers to a race and encompasses ethnically diverse sets of individuals. They could be black African, Black British, Caribbean, Black Asian or any other bicultural identities. The studies in the U.S. found that although Black women showed a motivation to change their eating behaviour in pregnancy, there were mitigating circumstances such as knowledge, finance and sociocultural challenges as expatiated in the systematic review. They also did not meet healthy eating or gestational weight gain guidelines during pregnancy as indicated by the studies. In the UK, literature examining the dietary profile of Black African immigrant women living in the UK is limited. However, Lindsay et al. (2014) examined the dietary profile of Nigerian pregnant women living in Scotland. The study found that 89% of the women involved were overweight/obese. There was also inadequate intake of vitamin D, calcium, and folate in their diet. Unhealthy eating or being unable to meet the healthy eating guidelines can lead to pregnancy complications for the mother and the foetus (Most et al. 2019). It is, therefore, essential to explore factors that influence healthy eating amongst Black African immigrant pregnant women as they have not

been adequately represented in the literature. This might contribute to developing and formulating effective interventions.

Most studies on healthy eating in pregnancy for Black women originate from the U.S therefore comparing literature from the U.S and the UK, sociodemographic differences exist between the UK and the U.S that could influence outcomes. For instance, in the UK, the NHS is free or heavily subsidised, which could reduce or minimise the financial burden on pregnant women when compared with the United States or their home country. Notwithstanding, existing studies have highlighted the presence of inequalities in access to healthcare in the UK for Black pregnant women (Henderson et al. 2013; Higginbottom et al. 2019; Peter and Wheeler 2022), in addition to the aforementioned adverse health outcomes. Although there is the presence of subsidised healthcare in the UK, inequalities in access, racism and communication barriers as earlier mentioned can significantly reduce women's engagement with antenatal information including healthy eating information. It is, therefore, vital to engage with BAIP women to explore their views concerning healthy eating information offered in pregnancy. Understanding women's healthy eating information gathering experiences and perceived needs is critical for identifying knowledge gaps and providing appropriate support to meet their needs.

Additionally, there is a dearth of literature in the UK exploring midwives' perspectives in offering healthy eating advice to BAIP women. As midwives are tasked with offering healthy eating advice in the UK, developing understanding regarding midwives' perspectives is key to providing adequate healthy eating support to this population.

The Medical Research Councils (MRC) framework for developing and evaluating complex interventions, advocates for developing a theoretical understanding of the change process that one wants to effect (Craig et al. 2008, 2013). This is achieved by drawing on an existing theory or by engaging or interviewing stakeholders of the intervention. Stakeholders would mean the individuals to whom the intervention would be targeted. Qualitative research would expose such experiences of previous engagements. As my aim was the development of a theory, a constructivist grounded theory approach to research was utilised.

In this study, qualitative interviews were conducted with Black African immigrant pregnant women in the UK and the midwives who provided their care. The aim is to develop a theory that explains BAIP women's experiences and engagement with healthy eating advice from the perspective of the pregnant woman and the midwife. In addition, the aim is for better understanding and to assist health professionals in supporting individuals from this population with their healthy eating needs. In the next section, an overview of healthy eating is presented.

1.4 Overview of healthy eating

A clarion call of the United Nations sustainable development goals is to have a world free of all forms of hunger and malnutrition (Nilsson et al. 2016; UN 2016; Fanzo et al. 2020). Malnutrition has been defined as a condition resulting from the consumption of a diet that is deficient, excess or contains imbalances of energy and or nutrients(WHO and FAO 2019; WHO 2022) . Consequently, a healthy diet has been defined as protective against all forms of malnutrition and non-communicable diseases such as diabetes, stroke, heart diseases and certain forms of cancers and that contains all nutrients in its correct proportions (Branscum and Sharma 2014; WHO and FAO 2019; WHO 2020). Healthy diets should be varied and balanced, include a balanced energy intake, high in vegetables and fruits, low in fat, sugar, and salt, rich in polyunsaturated fatty acid, whole grains, and fibre, low-fat or non-fat dairy, fish, legumes, and nuts. They are also low in refined grains and saturated fatty acids (WHO and FAO 2019). Detailed stipulations for a healthy diet are contained in the WHO (2020) healthy diet, which includes the amount of calories from the different food groups necessary for growth. It is not a one-size fits all plan and would vary depending on individual characteristics such as age, gender, lifestyle, and degree of physical activity.

A more recent definition of a healthy diet by the FAO and the WHO is a sustainable diet that "promotes all dimensions of individual health and wellbeing; has a low environmental impact and pressure, is accessible, affordable, safe, equitable and is culturally acceptable (WHO and FAO 2019). Therefore, healthy eating should mean consuming a healthy diet that meets an individual's energy and nutrient needs, has a low environmental impact, is affordable, accessible and within the context of the individual's cultural dietary pattern.

Healthy diets are promoted by food-based dietary guidelines (FBDGs) (FAO 2016; Herforth et al. 2019) but are based on a country's national food/nutrient-based guidelines (Fanzo et al. 2020). Food-based dietary guidelines (FBDGs) have been developed by the World Health Organization and the Food and Agricultural Organisation (FAO) since 1996 (Bechthold et al. 2018). FBDGs were designed to give broad guidelines for what people should eat. FBDGs are written in simple language with graphics, and they target diseases such as non-communicable diseases. They provide a basic framework to utilise when planning meals to obtain a healthy balanced diet and base dietary recommendations. They are country-specific; therefore, they provide context-specific advice based on sound evidence that considers the country's food production and consumption patterns. In addition, it considers the country's public health and nutrition priorities, food accessibility, food composition and sociocultural influences on diets.

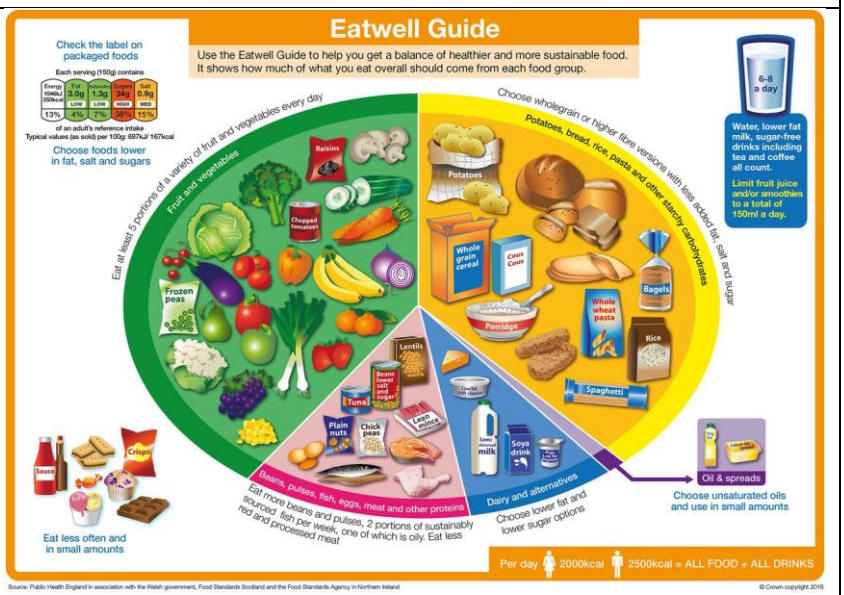
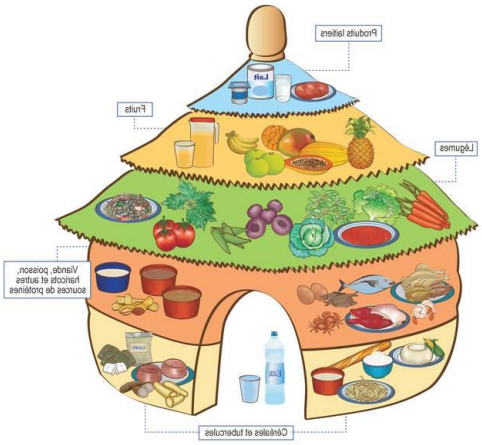
Eighty-three countries have developed their healthy eating guidelines (FAO 2016) with variations in specific foods and or nutrients that are part of the advice. For instance, recommendations for the consumption of red meat, dairy/dairy products and alcohol vary significantly between countries. This has been linked to the food culture of the countries involved (Herforth et al. 2019). In Europe, 34 countries have developed FBDGs including the UK (Bechthold et al. 2018). The way these guidelines are communicated varies widely between countries. For example, some countries provide detailed information on food quantities and frequencies to which the foods could be eaten. While some countries provide pictorial representations of the recommended food groups (Herforth et al. 2019). In the UK, the Eatwell guide (Buttriss 2016) formerly known as "The Balance of Good Health (1994), have been developed by Public Health England (PHE) to provide guidance for healthy eating (Buttriss 2016; Bechthold et al. 2018). The Eatwell guide as shown in figure 1.1 shows the food-based guidelines including a reference energy intake. The UK has published pictorial representations of the EATWELL guide in addition to a government-based publication that includes more information on what constitutes the portion sizes of the foods.

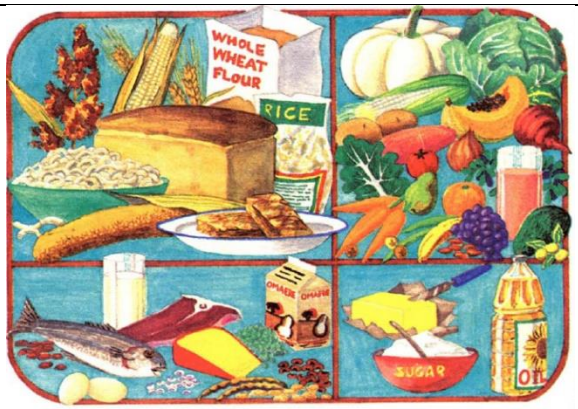
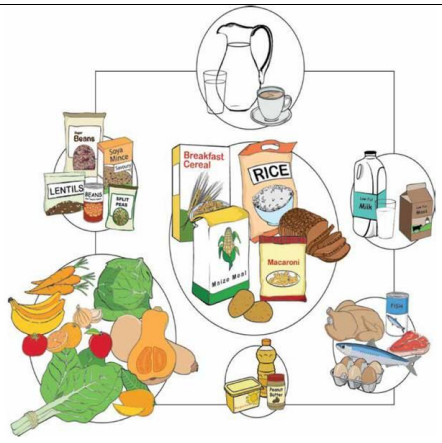
Figure 1.1 The Eatwell guide UK

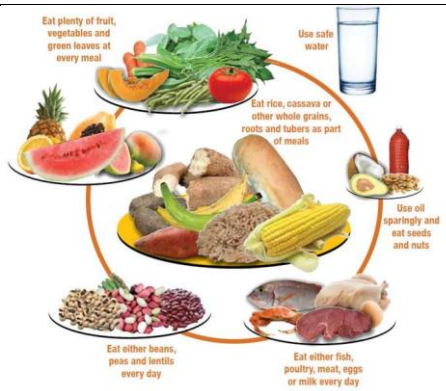
Table 1.1 shows a pictorial extrapolation of FBDG's from countries in Africa. At the moment, only seven countries in sub-Saharan Africa have FBDGs (Benin Republic, Kenya, Namibia, Nigeria, Seychelles, Sierra Leone, and South Africa (Herforth et al. 2019)).

A comparison between the Eatwell guide and the food based dietary guidelines for the seven available food based dietary guidelines for countries in sub-Saharan Africa are presented in tables 1.2 below and table 1 in the appendix.

Table 1.1 FBDG's pictorial representations

Countries	FBDGs
United Kingdom	
Republic of Benin	

Nigeria	
Namibia	
South Africa	

Sierra Leone	
Seychelles	

(FAO 2016)

The tables shows that significant variations exist between the healthy eating guidelines when compared with each other. Although, FBDGs are meant to stand alone, most countries attach additional text for emphasis (Herforth et al. 2019).

For instance, some countries recommend liberal portions of fish and meat daily with a wide variety of starchy roots and tubers, while countries like the UK recommend fish to be taken twice a week. For most countries in sub-Saharan Africa, there are no limitations on portion sizes for most foods especially for roots and tubers. Further exploration of the table show that some countries do not have recommendations for some food groups like diary and diary alternatives.

1.4.1 Criticism of the EATWELL guide

Little criticism of the EATWELL guide exists (Harcombe 2016; Bechthold et al. 2018). However, studies exploring healthy eating in ethnic minority populations have proceeded to create healthy eating guides reflective of the cultural needs of that population. For instance, Ochieng et al. (2021) developed a healthy eating guide through the process of co-creation with Black African immigrant community in East Midlands. This guide showed foods that were culturally relevant to the Black African migrant community showed in figure 2.1. This

suggests that the cultural modification of the Eatwell guide may be necessary to meet the healthy eating needs of the Black African migrant community.

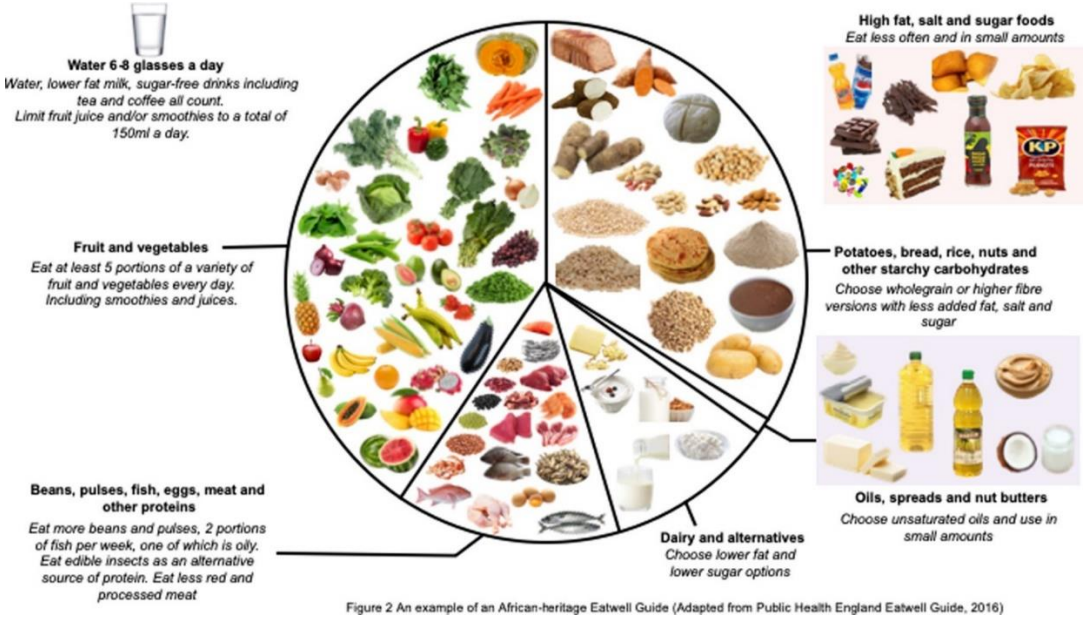


Figure 1.2: Eatwell guide for Black Africans

1.5 Migration, trends, and health status of SSA immigrants

The term migrant and immigrant has been used interchangeably in public debate. The definitions vary considerably depending on the purpose for which its use is intended. In this study, an “immigrant” will be defined according to definitions offered by the migration observatory UK. “Immigrants are individuals who have migrated from an international country and is subject to immigration control” (Observatory 2022)

Global migration figures are on the increase. Currently about 14% out of the 258 million migrants in the world were born in Africa. 26% of the people who have migrated from Africa live in Europe (Flahaux and De Haas 2016; Danaj et al. 2018; Idemudia and Boehnke 2020). The majority of the migrants from Africa to Europe come from North Africa, accounting for 86.8% of the total migrants from Africa however, migration from other parts of Africa to European countries have been on the increase. Currently, 72% of migrants from sub-Saharan countries are hosted in Portugal (360,000), Italy (370,000), France (980,000) and the UK (1.27 Million) (UNDESA cited in (Idemudia and Boehnke 2020).

Factors responsible for global migration include globalization and transportation, however from the region, other factors such as economic instability, levels of youth unemployment, poverty, corruption and civil unrest have been underlying factors for decades (Hoovestal

2013; Idemudia and Boehnke 2020). There is public debate around the role of immigration on health services of the now host country arguing that health services would be stretched (Credé et al. 2018; Harrison and Daker-White 2019). Therefore, the influence of immigration on health-care demand would be largely determined by immigrant's health condition and health trajectory (Harrison and Daker-White 2019). However, studies have shown that migrants health is greatly impacted by the process of migration (Pavli and Maltezou 2017).

There are several explanations for these influences. One argument is the changing life context and circumstance. It is also argued that immigrants arrive their host country with positive health behaviours, and that the degree to which they maintain these health behaviours within their ethnic minority population will provide them with a health advantage. This process is called the degree of ethnic maintenance (Luthra et al. 2020). Therefore, the degree of ethnic maintenance or acculturation has been linked to impact on migrants' health. There are also arguments especially around the role of racism and ethnic discrimination (Phelan and Link 2015). This is in addition to their inability to access resources due to their lack of knowledge about the host system or their non-qualification and exclusion from accessing resources that their host citizens qualify for (Negev et al. 2019). All of which causes additional stressors causing them to adopt unhealthy coping strategies. In addition, recent arguments have pointed to the role of an immigrant's legal status and its impact on the health of the immigrant. An immigrant's legal status in terms of "legality" and "recently immigrated" status is seen to shape their access to resources and play an important role in shaping their health (Young and Pebley 2017; Asad and Clair 2018; Giuntella et al. 2018; Bacong and Menjívar 2021). Linked to that are suggestions that immigrants who migrate to "more friendly" countries in terms of immigration laws, seem to do better than their counterparts in other countries in terms of self-perceived health status (Blair and Schneeberg 2014). In addition, studies suggest that the adoption of the negative health behaviours of the host environment and the fact that recent immigrants are less likely to use healthcare services also causes a decline in their health (Martinez et al. 2015; Matlin et al. 2018). All of these are social condition arguments that sit within the socio-economic determinants of health. It is argued that because social conditions structure numerous proximal causes of disease, removing one proximate cause such as stress would not abolish the link between social conditions and disease because other proximate reasons such as limited access to healthcare or racism would still remain (Asad and Clair 2018).

With regards to health status, Black African women living in the UK have been reported to be at a higher risk of developing gestational diabetes, hypertension and have an increased risk of adverse birth outcomes in pregnancy (Sinnott et al. 2016). They also make up about 66.6% of the overweight /obesity population in pregnancy in the UK. These statistics

although not delineated according to the different ethnicities that make up the Black African race is suggestive of the health status of Black immigrant women. In addition, for Black immigrant women, poverty, food insecurity, political and economic instability, recurrent illnesses, and repeated pregnancies in the countries in sub-Saharan region have put pregnant women at a nutritional disadvantage. Pregnant women in countries in sub-Saharan Africa still suffer from issues related to protein-energy malnutrition. Across the region, PEM rates sit at 23.5%, with the odds of malnutrition sitting amongst pregnant mothers who live in rural areas (Desyibelew and Dadi 2019). Pregnant mothers living in rural areas had a 2.6 times higher chance of being malnourished compared to their urban counterparts. Likewise, a cross-sectional equity analysis of demographic and health surveys in 11 countries (Cameroon, Congo, Comoros, Cote d'Ivoire, Ghana, Kenya, Lesotho, Nigeria, Senegal, Zambia, and Zimbabwe) in sub-Saharan Africa show an increasing trend in obesity amongst women of reproductive age. Rates varied from 20% in Lesotho to 6.5% in Cote D' Ivoire. Another study reported an overweight and obesity rate of at 18.1% and 9.9% respectively as at 2018 in Nigeria (Tagbo et al. 2021) Obesity rates were higher amongst wealthy, most educated, and urban dwellers except in Comoros where the reverse was the case (Tagbo et al. 2021; Wariri et al. 2021). Additionally, the prevalence of anaemia amongst pregnant women in the region sits at 47%, while 14% have vitamin A deficiency. There are also reported deficiencies of calcium and vitamin D amongst pregnant women and high rates of pregnancy complications and maternal mortality in the region. It is not known to what extent these nutritional deficiencies affect health and pregnancy outcome post emigration. There is also a dearth of literature on the effect of immigration on nutritional status and pregnancy outcomes for these women.

1.6 Rationale

In addition to the information provided in the study focus in section 1.3 above, from 2009, the maternal mortality data published in the UK highlighted the stark disparity in mortality rates between Black women and their Caucasian counterparts and between Black women and Asian women (Knight et al. 2018; Knight et al. 2019). The 2019 MBRACCE report showed that 19 out of 209 women who died in pregnancy from all causes were Black African women from sub-Saharan Africa, out of which 10 of the women migrated from Nigeria. In addition, 12% of the Black African women who died, died from cardiovascular diseases of which certain factors such as high blood pressure, overweight/obesity and black ethnic background increases the risk. This is in addition to post migration issues such inequalities in maternal care and access (Henderson et al. 2013; Higginbottom et al. 2019), problems with discrimination, communication barriers and racism (Higginbottom et al. 2019). Black African women were more likely than not to deliver by emergency caesarean section (Henderson et

al. 2013), less likely to receive pain relief in labour, fewer antenatal checks, less screening and ultrasounds. They also experience language barriers, were less likely to be treated with kindness and less likely to have confidence and trust in staff (Henderson et al, 2013; Jomeen and Redshaw, 2013; Higginbottom et al, 2019; Bawadi et al, 2020. In addition, recently immigrated women were likely than not to show a lack of understanding of the health care system in the UK thereby further increasing their risks of adverse pregnancy outcomes.

Whilst there has been a move in the United Kingdom (UK) to integrate migrants into the system, and actively engage with patients who have or are prone to poorer health outcomes. There has been very minimal effort to engage BAIP women in the UK in interventions for instance in healthy eating interventions that could improve their health outcomes. There is currently no healthy eating intervention in pregnancy that has been targeted at Black immigrant women.

Therefore, it is important to explore health behaviours (e.g., dietary) that have the potential to mitigate these risks, improve health outcomes and bridge the health inequality gap.

1.7 Research questions, aim, objectives and outcomes

Research Questions

- How is healthy eating interpreted and understood by pregnant African immigrant women living in the UK?
- What factors are considered significant (barriers and facilitators) to healthy eating in this population?
- What cultural factors are considered significant to the uptake of healthy eating messages in this population?
- What are the current sources of nutrition information in pregnancy for African immigrants in the UK?
- What are midwives' perspectives on providing healthy eating advice to pregnant African immigrants?

Aim

To explore perceived barriers and facilitators to healthy eating amongst pregnant African immigrant women in the UK and midwives' perception of providing healthy eating advice to this population.

Objectives

- To determine how healthy eating is interpreted and understood by pregnant African immigrant women living in the UK
- To identify the factors considered significant (barriers and facilitators) to healthy eating in this population
- To identify cultural factors considered significant to the uptake of healthy eating messages in this population
- To explore the current sources of nutrition information in pregnancy for African immigrants living in the UK.
- To explore midwives' perspectives on providing healthy eating advice to pregnant African immigrants.

Outcomes

- An in-depth understanding of factors considered significant to healthy eating (Sources of nutrition information, barriers, and facilitators) in this population.
- An in-depth understanding of the views of mid-wives to provision of healthy eating advice to pregnant African immigrants.

1.8 Recruitment of Black African immigrant women

This study was originally designed to recruit pregnant first-generation immigrant women who had migrated from countries in sub-Saharan Africa to the UK. However, the eventual sample consisted of first-generation immigrant women from Nigeria. This has been written up and discussed in the methodology chapter. Therefore, this thesis would refer to Black African Immigrant pregnant (BAIP) women even though the eventual sample recruited was from Nigeria.

1.9 Personal and professional influence on the research

"*Show me a sick man, and I will show you a man who has been a problem to himself and his loved ones."*

The above quote was seen in one of my late father's journals after his passing. He had been sick for over ten years and bedridden for the last five before he died. He had complications of diabetes and hypertension made worse due to his weight. At 6 foot 3 inches, my father was nearly 200kg, but that was not the problem. Anytime we followed the independent nutritionist's advice to watch his food so that he could easily control his weight and blood sugar, he told me that he would lose weight and cause his "enemies" to mock him. My father

was not uneducated; he was educated in the prestigious London School of Economics, had lived in London for a long time and was a foremost Chartered accountant. He had an interesting knowledge of how to eat healthily, which included eating everything in enormous proportions, and adding any form of meat/fish/chicken to his or his children's meal was a sign of wealth. That was my environmental and cultural upbringing, which ran parallel to my training as a Nutritionist.

This interest in healthy eating, born from my father's ill health, was sustained for a long time. However, my interest in pregnancy nutrition started when I was pregnant with my first son in 2010. Before my first pregnancy in 2010, I maintained a healthy weight and BMI of 23. However, upon my family realising that I was pregnant, there was constant pressure to eat for the baby's sake. The pregnancy period seemed to be very important. All the food decisions were taken from me and were controlled by my family, in-laws and sometimes friends. It was drummed into me that the baby would not thrive if I ate less food, and I would lose the baby weight once I had the baby. I was afraid I would lose the baby I had waited so long to have, and I reckoned that these people had much knowledge because they had several children. So, I succumbed to the pressure. I gained forty kilograms in that pregnancy. I was told I looked better when I had gained the weight.

I worked later in 2014 as a nutritionist at an Invitro Fertilisation centre in my state in Nigeria. At the time, we were looking at providing healthy eating advice for women who wanted to conceive. Through the counselling and follow-up sessions, I realised that during my time there, 100% of the women who came in for assisted conception procedures were overweight/obese. Conversations centred around healthy eating showed that they knew how to cook and food ingredients that could make healthy food combinations, and with help, many were eager to modify their cooking method. However, the women who came in never considered themselves overweight or obese. The changes they agreed to make were to improve their chances of getting pregnant. Some women had no knowledge of what weight was appropriate for their height, while some said that it was not culturally suitable to be smaller than they were. There was always a conflict when women with co-morbidities such as high blood sugar or high blood pressure were advised about food. Although there would be an apparent willingness to change behaviour, which a lot of the women went on to do so. They wanted it to be "fashionable" to lose some weight so that their "enemies" would not mock them for being slim.

I began to realise that there were many influences on weight gain and retention in Nigerian society, and just knowing about the food to eat was not enough. I also realised that certain parameters relevant to good nutrition knowledge or might translate to good health were not

applicable in the Nigerian context. For instance, level of education, wealth/socioeconomic status and sociodemographic location usually translate to good nutrition knowledge and attitudes toward healthy living in Western society; however, for most of what I had seen in Nigerian society, the reverse seemed to be the case. The culture seemed to have a strong hold on our actions and inactions.

There was, however, a paradox. There were individuals who had left the country and travelled “abroad” to the “white man’s” land. Whenever they returned, they seemed to have changed a lot. The kinds of food they ate for some of them changed; they dressed differently and even carried different hair. It seemed like culture no longer had a hold on them. They were their own people, different from the people and culture they left behind. This phenomenon was not uniform. Not everyone changed; it looked like the people who did change did that as a rebellion against the way of life they had been used to, or they just wanted to be a part of something different.

I have realised that the dominant culture in society seems to be much more important than any other messages that could be passed. I am interested in the subject of healthy eating, but I am also interested in the effect that society and the environment have on healthy eating. I am interested to see if Nigerian women would be more willing to adopt a healthy lifestyle given a different society and environment, especially an environment that focuses on messages of healthy eating. I am interested in exploring what could be the barriers to adopting a healthy lifestyle and what could be the facilitators.

I enter this study with the premise that individuals are shaped by their environment, interactions, and societal context.

CHAPTER 2:

This chapter has been redacted. The document and/or data contains information about research in progress where there is an intention to publish later.
See https://eprints.bournemouth.ac.uk/37999/

Chapter 3 Methodology

3.1 Introduction

Chapter 2 discussed literature highlighting the challenges and facilitators to healthy eating in pregnancy. Literature identified a paucity in studies regarding BAIP women's challenges and facilitators to healthy eating in pregnancy in the UK. One of the challenges to healthy eating in pregnancy identified was Black women's unwillingness to engage with healthy eating advice offered in pregnancy as this did not suit their cultural inclination. These views were either from Black American women, African women from Northeast Africa or Black African women living in sub-Saharan Africa. In addition, another gap identified at the start of the study was the non-existence of a recognised culturally adapted healthy eating tool for pregnant Black African immigrant women living in the UK. A later study by Ngongalah et al. (2021) involving both pregnant and non-pregnant immigrant women from countries in sub-Saharan Africa identified pre and post migration influences on dietary behaviours before and during pregnancy. The study was however published after the data analysis of this study and will therefore be used in the discussion of the results. The previously identified issues and the need to fill the gaps identified influenced the research design for this study. This study will therefore aim to explore the challenges and facilitators to the uptake of healthy eating in pregnancy for Black African immigrant pregnant women living in the UK.

This chapter presents an account of the theoretical foundations, the rationale for choosing a qualitative methodological approach and the methodological framework within the study. I also discussed my philosophical stance as a researcher and its effect on the study design. The chapter also discussed the process of data collection and analysis used in the study.

3.2 Theoretical foundations-ontology and epistemology

Selecting an appropriate paradigm is critical for all researchers because a paradigm provides the researcher and the world, the perspective with which the researcher views the world, and the means by which meaning is shared. (Mills et al. 2006b; Ryan 2018; Chun Tie et al. 2019). In addition, the credibility and rigour of research findings can be improved by ensuring that the researchers philosophical assumptions align with the study's aims, objectives, and the study's research design. According to Cresswell (2013), every research is influenced by the researchers ontological, epistemological, and methodological assumptions. Ontology refers to the nature of reality, epistemology refers to how reality is known, and the methodology refers to how reality is discovered (Cresswell 2007). As much as it tells the stance of the researchers, philosophical assumptions can assist reviewers of

research to understand the research's position and the assumptions made, thereby contributing to a fair evaluation of the study (Cresswell 2013). This is important as clarified by Cresswell (2013) especially when assumptions change over time.

For this research, the researcher's ontological belief is that reality is multiple (relativist ontology), subjective and is often influenced by interpretation and context (epistemology). This inclination towards relativism and subjectivism has been influenced by the researcher's personal experience during pregnancy and within the cultural context of being a Black African. It has also been influenced by her experience of being an BA immigrant and interactions with individuals within the BA community. Epistemologically, the researcher recognises that knowledge is contextually created. This world view is known as interpretivism/constructivism.

3.2.1 Interpretivist/Constructivist paradigm

This paradigm was developed as a result of the criticism of post-positivism's assumptions and methodology, and it is anti-positivist in its approach from. It grew out of the philosophy of Edmund Husserl's phenomenology and William Dilthey's study of interpretive understanding called hermeneutics (Mertens 2005, p.12 citing Eichelberger 1989) This paradigm is characterised with having a relativist ontology (i.e., there are multiple realities) and with a subjectivist epistemology (knowledge is contextual). It is also called the constructivist or naturalistic paradigm, although some researchers have asserted that the constructivist paradigm is different from the interpretivist paradigm (Denzin & Lincoln (2000) and Crotty 1998, arguing that in the constructivist paradigm, meaning is co-constructed with the participant and that realities are social constructions of the mind. For the purpose of this research, the interpretivist paradigm will be defined as including the constructivist or naturalistic paradigm.

The focus of interpretivism is on the interpretations of social reality (petty 3, Cresswell 1994, Glaser & Strauss 1967; Marshall & Rossman 1999), based on the assumption that multiple realities exist (Chalmers, Manley & Wasserman, 2005) and "knowledge is relative to particular circumstances—historical, temporal, cultural, subjective— and exists in multiple forms as representations of reality (interpretations by individuals)". Relativists view reality as being subjective and differ from person to person (Guba and Lincoln 1994) (Lincoln, Lyndham and Guba 2018). The relativist ontology also views meaning as not universal (Cohen et al. 2011) (Creswell 2009), has to be constructed (Dyson and Brown 2006, petty 3) and is dependent on context which could be historical, temporal or cultural (Charmaz 2006) (Benoliel, 1996, p. 407).

In this paradigm, knowledge is generated by an understanding of the multiple views of people in a particular situation and also the outcome of the interaction between the researcher and the participants (Merten 2014). It cannot be studied out of context. The general assumption of a subjectivist epistemology lies in the ability of the researcher to co-construct knowledge via interactions with the participants and as a result of his/her experiences. The researcher is seen as the co-constructor of meaning. Researchers are required to acknowledge their involvement in the research process including an acknowledgement that the researchers own experiences and subjectivity could influence their interpretation (reflexivity). These values and biases provide context to the study. Advocates of this paradigm prefer qualitative methodology using inductive (Schneider et al. 2016) 2013 and abductive reasoning strategies. Interpretivist research uses methods that enable in depth, individual and subjective experiences to be explored, uses methods that enable context to be described in detail. Key issue is the ability to gain in depth, contextualised understanding of individual experiences and interpretations. It is the understanding of the researcher that social context is important to how meaning is given and understood. Therefore, the researcher would want to consider context of an individual's life in this study whilst constructing meaning. This paradigm utilises research methodologies like ethnography, phenomenology and some variants of grounded theory (Davies and Fisher 2018).

3.3 This study

The purpose of the current study was not to test an existing hypothesis regarding Black African immigrant women's engagement with healthy eating advice in the UK. At the start of the study, there was a paucity of literature regarding their engagement. There were also no specific healthy eating intervention particularly targeting BAIP women in the UK (Austin and Dietetics 2011; Garcia et al. 2015) from which inferences could have been made regarding healthy eating in this population. If there had been, this would have provided a theory from which the researcher might have based a hypothesis. Neither was it the aim of the research to explain causal relationships (Holloway and Wheeler 1996). Therefore, an interpretivist/constructivist paradigm was considered suitable for this research.

As noted above, there is limited research to date, and little is known in relation to healthy eating in pregnancy within this population. There is therefore an argument that the topic under exploration is nascent, contextually complex, and therefore would benefit from an in-depth exploration of the experiences of the individuals. Therefore, a qualitative approach positioned within the constructivist paradigm was considered suitable for the research questions, aims and objectives. As described by Marshall and Rossman, qualitative research

refers to a myriad of approaches used in the study of social phenomena that is constructive/ interpretive, pragmatic and are grounded in the lived experiences of individuals (Marshall and Rossman 1999). This form of research is particularly suited for research areas that are growing or lacking or where existing research had been derived from concepts and theories from another area (Marshall and Rossman 1999), in this case the United States.

The focus of this present study was on exploring the barriers and facilitators to the uptake of healthy eating messages by pregnant African immigrant women and midwives' perspectives to the provision of healthy eating messages. In this study, meaning was co-constructed with participants based on social context, history, and environment, and also involved me reflecting on my experiences as a part of the community (Black African immigrant) though not pregnant. We are all influenced by our environment, history, and our social context, which has shaped our view of the world and how truth is interpreted. Emerging data from the exploration of the barriers and facilitators to healthy eating in this population was used to explain and draw inferences on BAIP women's engagement with healthy eating advice and midwives' perception about offering healthy eating advice to BAIP women. The emphasis on the participants perception and the exploratory nature of the research aims led the study to adopt a constructivist approach.

3.4 Methodology

Choosing which methods to use is determined by the researcher's methodology. There are multiple interpretive methodological approaches from which the researcher can chose from (Cresswell 1998; Creswell and Poth 2016). For instance phenomenology, grounded theory, ethnography, narrative research (Davies and Fisher 2018). It is important to note that no methodological approach is privileged over the other (Lincoln 2005), the difference in the methodological approaches lie in the identification of the problem and remedies offered. For instance, ethnography was thought to be inappropriate in answering the research question. Although classic ethnographic research is a study about the socio-cultural contexts and meanings within a culture of a people (Najafi et al. 2016), which can be used in describing that group or culture. However, the focus of ethnography is on the details of selected aspects of the culture available including the social setting (Muecke 1994; Najafi et al. 2016). The basic principle of classic ethnography is the unfamiliarity of the researcher to the cultural setting to which they are entering (Morse and Richards 2002). Also data collection requires long term observation, audio or video taping the process (Knoblauch 2005), which was unavailable for a doctoral research such as this one. More recent ethnographic methods have emerged for instance focused ethnography which requires that the researcher have a background or insider knowledge of the cultural group, which may be suited to me- being a

Black African immigrant. However, the focus of ethnography on understanding shared values of the cultural group being studied limits an understanding of individual values and ideas (Reeves 2008). This research is on how meaning is created based on how individuals interpret the actions and interactions of others. The process is known as symbolic interactionism, and it is a static process in ethnography. For this study however, the research question requires an exploration of immigrant pregnant women's perception of the barriers and facilitators to healthy eating in the UK. Although, I am familiar with the Black African cultural setting, being a Black African immigrant from sub-Saharan Africa, I am however interested in the creation of meaning as a dynamic process and on the understanding of individual meanings and ideas.

Also, with ethnographic research, researchers are classified as neutral and distant observers. This is different in grounded theory as the researchers are seen as co-constructors of reality with participants.

Grounded theory as a methodology is a suitable research method for the discovery and generation of new theory from data (Holton 2008) derived from important issues in people's lives. Data collection method is inductive in nature(Mills et al. 2006b; Davies and Fisher 2018; Chun Tie et al. 2019). The researcher approaches the topic with little or no preconceived ideas and meaning is co-constructed with the researcher (Charmaz 2006; Mills et al. 2006b). It differs from other qualitative methodologies in that it provides an overarching framework that enables researchers to explain why things happen, by collecting data for comparative analysis, developing conceptual categories and properties from the data, and then generating a theory.

3.4.1 Grounded Theory

Grounded theory is rooted in symbolic interactionism and the pragmatist philosophy. The goal of traditional grounded theory was to create an emerging theory that would explain a basic social process or that uncovers patterns in social relationships and group behaviours (Gelling 2015(Holton 2008; Birks and Mills 2015)). It generates a substantive theory for a specific social concern or a formal theory that is developed further and can be applied to and beyond the substantive area (Holloway and Galvin 2016).

There have been different variants of grounded theory which has come up since the original work of Glaser and Straus was published. It has been argued that the form of grounded theory chosen would depend on a clarification of the nature of the relationship between data, researcher and how each approach will match the phenomenon being researched (Chun Tie et al. 2019). The traditional uptake of grounded theory fits with the postpositivist paradigm. Although it is not categorically stated by the authors of classic grounded theory

(Glaser and Holton 2004), however, Glaser's position as a post positivist researcher is well documented (Bryant and Charmaz 2007) in the history of grounded theory by Bryant and Charmaz. Glaser and Straus's seminal work on grounded theory originated from an attempt to explain the process of dying in a hospital setting. The focus was on how the patients dealt with the process of dying and the reactions of the healthcare staff who provided their care. At the time, the positivist paradigm dominated the research world and their work offered a qualitative approach to study phenomena which was rooted in a critical realism ontology and an objective epistemology (Holton 2008). In the process of questioning the appropriateness of using scientific methods to explain this phenomena, grounded theory was born. The traditional grounded theory approach is also known as classic grounded theory.

The goal of the classic grounded theory was to develop a conceptual theory that will account for a pattern of behaviour that is relevant to those involved (Charmaz 2014).). As with the postpositivist paradigm, the researcher approaches grounded theory with the understanding that reality existed external to herself and the research participants. Theory emerged by objectively analysing data and developing predictable categories and properties from patterns noted in the data. This theory accounted for the patterns of behaviour that was relevant to those involved. The researcher was expected to approach the data as a blank slate (Kushner and Morrow 2003) and using the method of constant comparative method, be able to discern irregularities in the data. The regularities will emerge as a theory that transcends and concurrently simplifies the data. In the traditional/classic approach, the researcher is external to the process and is an observer rather than a creator or participant. The researcher remains "open to what is actually happening" as stated by (Glaser 1978) without forcing the data (constituent parts) to fit the theory (emergent property). Identification of this theory can only be done if the researcher maintains a stance of objectivity and allow for participants perspectives to come through rather than the researchers (Glaser 1978) following a set of methodological procedures systematically (Glaser and Holton 2004). The idea is that the same theory will emerge irrespective of the person undertaking the analysis (Glaser and Holton 2004). Approaching the data with a general sense of amazement the researcher removes her control on the data and allows the theory to emerge in its true sense. In this however lies one of the core differences, because the data is situated as a separate entity different from the participant and the researcher. Critics of the traditional grounded theory approach theorise that it is not possible for the researcher to be a blank slate.

After their initial work published in the Discovery of grounded theory, Strauss and Corbin went ahead to publish separately, providing different variants of the grounded theory methodology. They include the classic GT (Glaser et al. 1967) and the Straussian model

(Strauss and Corbin 1990). The constructivist model (Charmaz 2000) was discovered later. The feminist approach to grounded theory was added by Wuest (Wuest 1995).

Subsequent variants of the grounded theory methodology subscribed to the notion of the subjective meanings that individuals placed on events based on what they believed was true and the context of their life. The second genre known as the Straussian model, or the evolved grounded theory is founded on symbolic interactionism and stems from the work of Strauss, Corbin, and Clarke. This differed significantly from the traditional model of grounded theory which subscribed to the discovery of truths reflective of a real reality that emerged from the data (Mills et al. 2006b). The Straussian model is said to oscillate between the postpositivist and the constructivist paradigm (Mills et al. 2006b). In the Straussian model, the researcher engages actively with the literature. The literature is used as another voice contributing to the researchers theoretical reconstruction of the reality being discovered. (Mills et al. 2006b)

The third genre, known as the constructivist grounded theory, was developed by Charmaz and has its roots in symbolic interactionism and constructivism. As with the Straussian model and opposed to the traditional grounded theory, the constructivist grounded theory allows the researcher to start with a literature search on the substantive area to be investigated. However, this engagement with literature is to enable the researcher to reflect on his position as a researcher and their underlying assumptions (reflexivity).

Charmaz also recognizes that rather than data providing a window into reality, instead ‘discovered’ reality was a result of an interactive process dependent on cultural and structural contexts (Charmaz 2000) . Constructivist grounded theory allows the researcher to reflect on their positions as co-constructors of this reality. The main theme underlying the CGT is the treatment of data and their analytical outcomes. The underlying assumption in CGT is that the interaction between the researcher and the participant produces the data, therefore, to enrich the data, the researcher is positioned as the co-producer of the data. To produce rich data and improve context, Charmaz advocates for researchers to add a description of the situation, the interaction, and a general perception of the interview process. CGT researchers need to immerse themselves in the data in such a way that the participants voice is heard in the final outcome using an active coding language (Creswell et al. 2007). Charmaz advocates the inclusion of the raw data in their theoretical memo in order to keep the participants voice and meaning present in the theoretical outcome. The writing style in CGT should be narrative in nature suggestive of the experiences of the participants. Despite their differences, all three grounded theory approaches embrace the fundamental aim of developing theory that explains the process associated with a specific phenomenon.

Although the key inductive grounded theory strategies remain intact with Charmaz's uptake of grounded theory, there is a shift away from the objective stance of the researcher and a recognition of the researcher's role in constructing the data and theory**.**

Wuest (1995), Keddy et al. (1996) and Kirkby and McKenna (1989) have argued for a congruence between feminist theory and grounded theory, applying the feminist perspective to grounded theory methods (Kirkby and McKenna 1989; Wuest 1995; Keddy et al. 1996). Following on, studies have integrated the feminist ethical theory with grounded theory approaches to develop a feminist grounded theory approach (Taylor 2020). The feminist ethical theory recognises the power imbalances disproportionately affecting women and seeks to criticise patriarchy. Although, the feminist theory can be used as a grounded theory methodology, in that it can generate substantive theory about the experiences of women. However, feminist theory seeks the emancipation of women, makes public the oppressiveness of women's circumstances in the society and seeks for the liberation of these women. In the process feminist theory criticises the foundational and social constructs of women (Fiaccadori 2006).

It is argued that different elements of the different variants of grounded theory can be used to produce theory. However, for the present study, I have decided to follow a single model of grounded theory. This is because I was interested in challenging my position as a member of the immigrant community as well as co-construct the meaning of reality with participants. This research is not also considering the emancipation of women or challenging the foundational and social constructs that women find themselves. Therefore, the feminist grounded theory was not considered suitable. A constructivist grounded theory approach was identified as appropriate to develop insight into how African immigrant pregnant women engaged with healthy eating advice in relation to their cultural and social contexts. Meanings would also be developed around the perception of the midwives who provided their care regarding their engagement with healthy eating advice in pregnancy. The constructivist grounded theory approach sits squarely under the interpretive tradition of qualitative research (Charmaz 2000; Creswell et al. 2007).

3.5 Research aim

The research objectives (see chapter 1, section 1.7) sought to explore the barriers and facilitators to the uptake of healthy eating messages, factors considered important and midwives' perspectives towards the provision of healthy eating advice to pregnant African immigrants. With the emerging data, the researcher will understand how Black African women engage with healthy eating advice within the context of the UK.

3.6 Methods

3.6.1 The sample characteristics and approach

Two different sample groups were involved in the study

1. Pregnant African immigrant women (definition in chapter 1)
2. Midwives

The inclusion and exclusion criteria for the study are presented in tables 3.1 and 3.2

Table 3.1 Pregnant women inclusion/exclusion table

Sample group	Inclusion	Exclusion
Pregnant women	African immigrant women living in the UK	African immigrant women less than 18 years were excluded Rationale: Anyone below the age of 18 is categorised as a child in the UK, therefore due to concerns with safeguarding, anyone below the age of 18 will be excluded(https://www.gov.uk/government/publications/working-together-to-safeguard-children--2)
		Pregnant women who have chronic diseases that require dietary management e.g., diabetes, hypertension, coeliac disease was excluded from the study Rationale: It is assumed that women with these diseases would already have dietary management in pregnancy. This might affect their view of healthy eating advice in pregnancy.
	Attending antenatal clinics in the study sites	Adults who were unable to communicate in English or pidgin (creole- spoken by sub- Saharan Africans) were excluded from the study. Rationale: This is because the interview will be in English with an oral pidgin translation by the researcher. The cost of translation from any other language apart from English and pidgin was considered as a mitigating factor. In addition, the demographic

		questionnaire required writing, for that, a basic understanding of the English language will be required.
	African immigrants' ethnicity will be self-reported	Participants who did not have the mental capacity to consent (Mental Health act 2005) were excluded from the study.

Table 3.2 Midwives inclusion/exclusion table

Sample group	Inclusion	Exclusion
Midwives	Qualified midwives who worked at the study sites	Midwives who had not directly provided care for this group of women. Rationale: This study is primarily based on the experience of providing healthy eating advice for African immigrant women, therefore, it is necessary to include just midwives who have provided care for them.
	Midwives who have provided care for African immigrant pregnant women. Rationale: The process of immigration is said to have an influence on how women access and receive care.	

3.6.2 Sampling and recruitment

The aim of this study was to not to test a hypothesis but to explore a nascent area and to describe a poorly understood phenomenon. It was therefore important to use subjective methods to decide what participants were suitable for the research (Etikan et al. 2016). Hence, nonprobability sampling methods such as snowball and convenience sampling were used to recruit initial participants. In addition, Grounded theorists employ theoretical sampling to purposively select individuals based on the information gathered in early

interviews, therefore, theoretical sampling was used to further recruit participants (Foley and Timonen 2015). Convenience and snowballing are used to identify initial participants who met the inclusion/exclusion criteria, who would then provide the initial data which would direct subsequent interviews (Charmaz 2014; Bryant 2021). Convenience sampling relies on easy accessibility, availability, willingness to participate, geographical proximity and meeting inclusion/exclusion criteria (Etikan et al. 2016). Snowballing refers to a form of referral used in recruitment where one subject provides the researcher with the name of another or refers another subject to the researcher. It has been proven to be useful in conflict situations (Cohen and Arieli 2011) or in the recruitment of hard-to-reach populations (Valdez et al. 1998). African pregnant women have been termed as hard to reach (Esegbona-Adeigbe 2020) therefore I used snowball sampling in addition.

3.6.2.1 Convenience and snowball sampling

Pregnant women

Potential participants for the study were identified using convenience and snowball sampling before theoretical sampling was applied after initial interviews. The recruitment of pregnant women for this study was found to be particularly challenging. Existing literature has found that black and minority groups including Black African women were a “hard to reach” population. Initial PPE interviews in Bournemouth with Black African women revealed the low proportion of Black Africans who lived in Dorset. In addition, according to National statistics, 4.4% of the population of Dorset identified as ethnically “others”, out of the 4.4 % only 5% were Black/African/Caribbean/Black British (https://mapping.dorsetcouncil.gov.uk/statistics-and-insights/Topics/Topic/Diversity). Therefore, to improve recruitment chances, areas in England with a higher proportion of individuals who identified as Black African were identified. To maximise recruitment, several NHS Trusts in these areas in London were approached and the ones who indicated interest were asked to collaborate in the study. Other advertisement methods used include social media (Facebook, Instagram, Twitter, and WhatsApp), contacting churches and mosques, community groups and snowballing through the women who participated in the study. Eligible and willing pregnant women were recruited in the South of England between January 2020 and January 2021. The barriers encountered during the recruitment of pregnant women as compared with the literature, the recruitment process and factors that aided successful recruitment has been accepted for publication and is included at the end of this section.

Midwives

Eligible and willing midwives who worked in the NHS Trusts identified in the previous section were recruited between January 2020 and January 2021. In addition, some midwives were recruited from the Black and Minority Ethnic (BAME) Birthing with colour event that held in November of 2020.

3.6.2.2 Theoretical sampling

Theoretical sampling is a core feature of grounded theory and generally involves sampling according to the emerging categories until the theory is fully developed and no further data was required (Charmaz 2014; Foley and Timonen 2015). Emergent concepts in the data guides the direction of data collection, from whom and for what purpose (Bagnasco et al. 2014) In this study, theoretical sampling was used to guide the interview questions and the data generating process. As argued by Foley et al. (2021), concepts that emerge from the data prompts the researcher to steer the interviewing in such a way that meaning and dimensions of those concepts are uncovered. Therefore, although theoretical sampling in commonly understood to mean a sampling for particular participants that fit the criteria, it could also mean redirecting the interview questions to cater for the categories that emerge (Charmaz 2006; Foley et al. 2021). For the pregnant women, from interview P1, emerging themes related to culture, therefore subsequent interviews with pregnant women were steered towards questions that arose from previous discussions about culture in addition to questions in the interview guide. Theoretical saturation was achieved when no new concepts emerged from the interviews either about the concepts that were emerging or about any new concepts that emerged. For midwives, as new concepts were mentioned that either related to the concepts mentioned by pregnant women or were relevant to the social process being investigated, theoretical sampling involved pursuing the topic in subsequent interviews. For instance, for midwife M4 talked about Black African women being “laid back”. The concept of “being laid back” was pursued in addition to other topics in the interview guide until there were no new concepts that could be gleaned from the interviews. This concept of Black African women being “laid back” also necessitated that I request for a convenience sample of Black African midwives. This was so that I could compare and contrast their opinions.

3.6.2.3 Eligibility screening

Midwives

Initial protocol for the study indicated that identification and screening will be carried out by the clinical care teams and hospital managers/research midwives. However, the protocol was amended due to COVID restrictions to accommodate virtual recruitment and

interviewing. Therefore, research midwives who acted as gatekeepers for this study screened potential participants for eligibility. The names were then forwarded to me, and contact was initiated using email. Participant Information sheets were sent to potential participants who met the inclusion/exclusion criteria.

Pregnant women

The amended protocol applied to pregnant women. The barriers to recruitment for pregnant women have been written up in the paper “Barriers and facilitators to the recruitment of Black African women for research in the UK: hard to engage and not hard to reach” as indicated above. Referral was made by the research midwife in Trust A to a “pivot” individual in the community who was known to the research midwife. The “pivot” individual was briefed on the study, she was relied on to brief potential pregnant women using the recruitment flyers. Pregnant women who were interested in the study, would make contact via email or telephone. Once contact was initiated, an initial telephone/email contact was set up to determine actual eligibility. Participant Information forms were sent to the potential participants who met the eligibility criteria. This process was repeated for pregnant women that were recruited through churches and mosques. The contact individuals in this case were pastors of the church or imams as the case was.

3.6.2.4 Participant information forms and consent forms

Participants who verbally indicated their willingness to join in the study were asked for their contact details (mostly email). Postal contact was considered when the participant had no email contact. The email contact was considered more suitable due to the COVID restrictions. The documents sent to the participants consisted of a participant information sheet (see appendix 5a and B) and a consent form. The participant information sheet (PIS) was a document that contained an appreciation information, study summary, purpose of the study, safeguarding information and provided further information about the study.

Feedback regarding the suitability of the PIS and the consent forms was obtained from prior patient and public involvement (PPI) study and lecturers in the department. Feedback was obtained from a group of postpartum women who self-identified as Black African immigrant women during a community event in a local church in the local Bournemouth area for pregnant women.

Times for interviews were organised with the participants once the researcher received (mostly by email) a signed consent form.

3.6.2.5 Gaining Entrée

Several sites were approached for the study, three sites indicated interest in the study. However, after the application for ethical approval, two sites eventually gave organisational agreement and research passport to commence the study. For the purpose of anonymity, they will be identified as Trust A and Trust B located in London. Sites in London were targeted because London, as a city has the highest population of Black African immigrants in the UK (Office for National Statistics (ONS) 2017). London and outer London is estimated to have about 900,000 people identifying as Black African.

Preliminary letters sent to the Trusts identified the reasons that they were targeted and the Trusts that did not have a large population of Black African immigrants declined to participate in the study. Both sites that eventually indicated interest stated that there was provision for safe space for in-depth interviewing and focus group discussions as originally indicated in the research protocol agreed upon by the Bournemouth University Research Ethics committee and the London-Brent research ethics committee.

The principal investigator for the Trusts identified the research midwife for Trust B and the Head of midwifery for Trust A as further gatekeepers to liaise with throughout the study. There was an early meeting with the head of midwifery in Trust A to develop a good working relationship with the gatekeeper as this is seen as a crucial aspect of research (De Laine 2000). As gatekeepers are considered as those who are capable in limiting or controlling researchers access to participants (May 2011; Crowhurst 2013). An early meeting was also held during the COVID era with the research midwife in Trust B as she was identified as a further gatekeeper for the second trust.

3.6.2.5.1 Trust A

Trust A referred the researcher further to the maternity and voice partnership (MVP) chair to help recruit pregnant participants. It is important to note that the MVP chair for this trust is a Black African immigrant who had strong ties with the community. The MVP chair position is picked from amongst the women in the community. The number of gatekeepers required for the study therefore increased. The researcher was also referred to another member of the local community by the MVP chair who acted like a local liaison officer and knew the women well. This therefore provided additional layers of gatekeepers. Several studies have highlighted the importance of identifying and developing relationships with gatekeepers before the commencement of any study. However, research with hard-to-reach groups might be difficult, because of the layers of gatekeepers. (Sullivan 2020). This has been written up and discussed section 3.7.3

3.6.2.5.2 Trust B

Due to the pandemic restrictions, contact with Trust B was mainly via emails. There was no successful preliminary visit to the trust as was with Trust A. Recruitment of pregnant women and midwives for this trust was solely handled by the research midwife.

3.6.2.5.3 Other sites- pact group (community group in the Southwest of London)

Two community organisations with offices in the Southwest of London was identified in the south of London (C and D) and introduction/recruitment emails were sent to the gatekeepers of the group. There was no response from one group either by email or calls. Group D identified 2 participants who were interested in the study. one eventually consented and one declined.

3.6.2.5.4 Other recruitment methods

The study protocol indicated that recruitment notices would be posted on social media sites. Sites like Facebook, Instagram, twitter, and WhatsApp groups with pregnant women were used. No pregnant woman was recruited via posts placed on these websites.

The next section 3.6.3 is a paper that has been published in the MIDIRS midwifery digest. The article articulates the problems of recruitment as faced by this study.

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The remainder of this chapter has been redacted as it published elsewhere: see
Ekong, A., Adesina, N., Regmi, P., Tsofliou, F., Wood, J. and Taylor, J., 2022. Barriers and Facilitators to the recruitment of Black African women for research in the UK: Hard to engage and not hard to reach. *Midirs Midwifery Digest*, 32 (2), 153-159.
https://eprints.bournemouth.ac.uk/36598/

3.6.4 Data collection

Charmaz 2006 indicates the need for the research problem to shape the methods that we choose (Charmaz 2006). Some research problems might indicate the need to use different methods of data collection. Interviews are known to be the most widely used tools for collecting data for qualitative research, therefore individual interviews were used in this study (Green and Thorogood 2018). Interviews in grounded theory can be in the forms of individual interviews or focus group discussions (Mitchell 2014; Morse and Clark 2019). Although traditionally, interviews have been conducted face-to-face, however virtual interviews are becoming more common (Kite and Phongsavan 2017). Self-developed questionnaires were also administered primarily for the purpose of obtaining demographic information from participants.

In keeping with traditional interview practice, the original protocol of this study indicated that one-on-one interviews would be conducted for pregnant women during an antenatal visit in the hospitals allocated venue. In-depth interviews were chosen over focus group discussions (FGD) due to the peculiarity of the recruitment process. Previous literature (Lindsay et al. 2014) has identified pregnant African immigrant women as a “hard to reach” group, therefore consideration had been given to the practicality of organising a panel of pregnant women who had been considered “hard to reach” for an FGD. Moreover, it was important to explore the unique experience of each woman, therefore one-on-one interviews were adjudged to be more suitable (Dickson-Swift et al. 2007). Subsequent amendment of the protocol due to COVID made the one-on-one interviews virtual for pregnant women(Kite and Phongsavan 2017).

Data collection method for midwives followed the amended protocol, which included virtual one-on-one interviews and focus group discussions. This depended on the preference of the trust, the individuals, and the research midwife. The decision to use either FGD or interviews was due to logistics, consideration of the busy schedule of midwives and how comfortable the midwife was to whatever means of data collection she had chosen. Topic guides were developed to facilitate the conduct of the interviews.

3.6.4.1 Topic guide

Topic guides for semi-structured interviews containing open ended questions were developed for the interviews (see appendix 5C and D). Unstructured interviews containing no specific sets of questions are suitable for data collection in grounded theory studies if the

aim is to extract what is most suitable for the phenomenon being studied (Foley et al. 2021). This is very common in the classical forms of grounded theory, because it is argued that it creates a theory that is grounded in the data (Glaser 2007). However, semi-structured interviews are considered more suitable for grounded theory studies where the researcher has identified some domains within the inquiry which would be used as baseline for interviewing (Foley and Timonen 2015; Foley et al. 2021). In grounded theory, the notion of sensitizing concepts as defined by Blumer 1954 in Bowen (2006) is useful to give initial ideas and a general sense of reference of concepts and ideas to pursue regarding the topic. The interview schedule developed were used as guides. My guiding interests led to developing concepts such as forms of healthy eating advice in pregnancy, the healthy eating guidelines, eating habits in pregnancy and perception of healthy eating. I used these terms as ''points of departure''(Charmaz 2006) to form interview questions. Sensitizing concepts are used in grounded theory methodology as tools used in developing ideas which are later refined in the data. If at any point during the data collection point some sensitizing concepts are no longer useful then they are dispensed. The idea is to remain as open as possible to whatever comes up during the data collection process. New concepts that are learned during the research are pursued and they form new ideas. This makes sure that preconceived ideas are not forced on the data.

In addition, the use of semi-structured interviews could increase participants freedom to direct the discussions while still allowing the researcher to gather rich and in-depth data to address the study's aims and objectives (Charmaz 2014). The interview guides were developed with expert collaboration with researchers in the field, from scant literature review and from PPI interviews.

The semi-structured topic guides contained open ended questions broadly framed to reflect the study's objectives and the gaps in the literature. It also allowed for the researcher to capture emerging concepts. The interview guide for midwives was piloted with midwives at Bournemouth university, Portsmouth campus. Feedback regarding the length of the questionnaire format and the interview guide were provided and they helped in formatting the final copy. For midwives, the same interview schedule was used for the semi-structured interview and the FGD (attached in appendix 5C).

3.6.4.2 Interviews with pregnant women and midwives

Interviews with eligible pregnant women and midwives who consented took place by Teams or Zoom. The location of the interviews took place at the participants discretion. The interviews lasted between 40 to 60 minutes for pregnant women and between 20 to 60 minutes for midwives. The COVID outbreaks made some of the midwives unusually busy

and therefore they could only afford minimal time for the interviews. However, they still wanted to participate and share their views, albeit succinctly. The data gathered in these cases was, of necessity, in less depth than some other interviews, but still contained valuable insights and were therefore included in the findings.

All the interviews were audiotaped. Taking into account the need to balance the power dynamics between researcher and participant, and to develop trust and rapport, the interview style was conversational (Charmaz 2014). Drawing the participant into the conversation until the participant is comfortable to share their story is the hallmark of a good interview (Mills et al. 2006a; Karnieli-Miller et al. 2009). The interview started off with pleasantries, stories about the weather and background information about the researcher and the study. This eased the mood of the conversation, causing it to seem more like a "chat" than an "interview". This facilitated a relaxed atmosphere allowing for the participants to comfortably share their stories. Further, a number of consciousness-raising questions that could provoke thinking about potential power differentials in the interview guided the researcher in the interview. Questions such as how does this person compare to me, how are they different from me and how do these similarities and differences manifest in our interactions (Seibold et al 1992 as cited in Miles et al 2006).

3.6.4.3 Focus groups with midwives

In addition to interviews, two focus groups with midwives were conducted. The focus groups were initially supposed to host a minimum of 4 midwives, however on the day that the first focus group occurred, two midwives were able to attend. This was as a result of the busy schedule of the other midwives and the COVID situation. Another focus group meeting was scheduled by the research midwife with more promise. However, the second focus group also had two midwives in attendance. The data has been transcribed and included in the analysis. The focus group discussions

3.7 Ethical considerations

There should be an awareness of ethical considerations in human research in order to reduce harm (Orb et al. 2001) and ensure that the rights, privacy and safety of the individuals that take part in the research are protected as contained in the Helsinki declaration and Nuremberg code (Dentists 2014); to guard against the risk of non-maleficence (Beauchamp and Childress 2001). Ethical guidelines encourage researchers to anticipate possible ethical tensions are intended to guide thinking in applying for ethical approval by encouraging researchers to anticipate the ethical tensions and difficulty that may arise during the study dilemmas (Reid et al. 2018). This can be done through the implementation of appropriate ethical principles. The responsibility lies with the researcher to

protect the participants (Orb et al. 2001); therefore, it became imperative to demonstrate that all ethical issues had been considered.

Pregnant women are considered as a vulnerable group in research practice, not because they lack freedom or autonomy as might be the case with other vulnerable groups but they are considered vulnerable because of the potential risks that the research might present to the unborn foetus especially in scientific research (Lupton et al. 2004). Having said that however, general research ethics requires a consideration of the participants safety. In the case of qualitative research, safety issues might present in different ways, is considered subtle and continues long after the research process has been completed (Reid et al. 2018). It includes the consideration power relations between the researcher and participants (Orb et al. 2001; Karnieli-Miller et al. 2009; Anyan 2013) issues of anonymity, confidentiality, and informed consent (Orb et al. 2001; Richards and Schwartz 2002; Sanjari et al. 2014). Other issues considered include access to the community group, (Orb et al. 2001), availability of suitable interviewer and availability of support services in case the women interviewed were distressed. The ethical considerations were handled in the following way

3.7.1 Power imbalances

Dealing with power imbalances in qualitative research is an on-going process evident in recruitment, ethical considerations, data collection, data analysis, validation (Karnieli-Miller et al. 2009). Suggestions have been made about measures to promote reciprocity between researcher and study participant (Karnieli-Miller et al. 2009; Anyan 2013). For instance, as indicated in the previous section, conversational interviews promote fair share of power between participant and researcher (Karnieli-Miller et al. 2009). Other considerations include the use of reflexivity (awareness of self), with the researcher indicating previous influences and how this affects the research (McGhee et al. 2007). This has been done in chapter 1, earlier section of chapter 3, where the researcher reflects on her underlying philosophical assumptions and chapter 8.

In the recruitment process, potential participants were offered as much information as possible from the participant information sheet. They were also given time to read and consent with the researcher limiting contact with participants as much as possible under the COVID circumstances until they were consented for the interview. Respondent validation was carried out (Birt et al. 2016). Transcripts of interviews were sent back to participants to check for accuracy of words captured. This was also to make sure that participants felt that what was captured appropriately reflected their perspective. The process of constant comparative analysis and theoretical sampling in this study ensured that all emerging concepts were pursued, and saturation achieved.

3.7.2 Anonymity

To maintain anonymity, the researcher was careful not to intrude into the autonomy of the study participants. It is important to state here that full anonymity was not possible as the researcher needed to obtain identifying information from the participants such as email address and phone number. This was necessary as all communications for the study had become virtual due to the COVID restrictions. However, all collected data was properly stored on data encrypted computers provided by Bournemouth University. Saved transcripts from interviews were anonymised by replacing participants names with a numbering system therefore eliminating any use of the participants names. Transcripts were coded in such a way that any information that could potentially disclose the participants identities were removed. This was considered appropriate due to the Trusts from which the midwives had participated from.

3.7.3 Confidentiality

Potential participants were informed in the PIS how the data that was obtained would be used and who had access to the data (Sanjari et al. 2014). In compliance with the General Data Protection Act 2018 (GDPR 2018) and the Data protection Act 1998 and 2018, strictly required personal data were collected from participants. Bournemouth University's office landline was used to contact the participants prior to COVID lockdown. During COVID lockdown, the protocol was amended to reflect the addition of a school provided phone number set up specifically for the purpose of the study. In addition, the researcher's university email address was used to make contact with the participants. Information about storage of data were contained in the participant information sheet.

Some collected source data (field notes and demographic questionnaire) were provided as soft copies and stored on password-protected computers. Hard copies that were received were stored on locked cabinets at Bournemouth University. Transcripts were saved securely on data drives provided by Bournemouth University. Access to these documents were restricted to the researcher and her supervisors. Participants names were replaced with a numbering system therefore eliminating any use of the participants names. No identifiable data was used in the data analysis. Data inclusive of interview recordings will be kept securely for 5 years from the date of the final publication in accordance with Bournemouth University's data management policy.

3.7.4 Informed and Valid consent

Obtaining informed consent is essential for participation to occur in research. The principle of autonomy in qualitative research is honoured by informed consent (Plas et al. 1996) and

means that the terms of participation is understood by all parties involved in the research, including voluntary acceptance or refusal (Sanjari et al. 2014). To ensure this, participant information sheets and consent forms were sent via email and signed delivery postal services using local postal services to pregnant women and midwives who indicated interest in the study. There was an indication for further explanation if the language used in the information sheets were not understood. Pregnant women who were eventually recruited into the study always required further explanation about the study. This might not be attributed to the language used in the participant information sheets but rather to the process of recruitment. Because the eventual gatekeeper who was a member of the local community known to the Trust insisted that after the study was introduced to pregnant women by her, and information sheets and consent forms sent, that a further meeting with the women was important to gain their trust. It is my thought that this was done to improve my chances of recruiting participants, noting that once potential participants heard my voice and realised that I had an accent as an immigrant, they would be more inclined to participate in the study. This was done via a zoom/teams meeting. This has been discussed in my reflexive chapter and the section on hard-to-reach groups.

Following on, a minimum of 24hrs was given after the meeting for a decision to be made. There was a core difference in the way pregnant women were recruited and the way midwives were recruited due to the layers of gatekeepers in the recruitment of pregnant women, which have been discussed in section (hard to reach group).

3.7.5 Availability of support services

There was an acknowledgement of the potential that the interview could cause emotional distress, especially in pregnancy (Orb et al. 2001). There is an ethical obligation on researchers to minimise this risk. The PIS contained information about support services that was available. Participants were also informed during the interview that if the interview caused them distress at any point, the interview would be discontinued, and participants would be signposted to an appropriate counselling service. There was a provision to signpost participants to the clinical care team of the trust to which they belong. There was no participant that required signposting during or after the interviews to the researcher's knowledge.

3.7.6 Ethical Approval

A favourable ethical opinion was gained from the London Brent Research Ethic Committee Local Research Ethics Committee and the HRA and Health and care Research Wales (HCRW). This was in addition to an approval from the Bournemouth University Research Ethics committee. This was necessary before the commencement of the study.

3.7.7 Do no harm (non-maleficence)

Participants were informed of their participation was voluntary and their participation or non-participation would not affect their healthcare and legal rights. Participants were told to pick interview locations that they were comfortable with and that they felt safe in.

3.8 Data analysis

Data analysis followed the constant comparative method to ensure the “grounding” of the emergent theory in the participants data (Charmaz 2014; Ramalho et al. 2015). Constant comparative method is an analytic tool used in grounded theory to promote reflective thinking (Giles et al. 2013; Charmaz 2014; Ramalho et al. 2015). It involves comparison of incidence to incidence for the emergence of concepts, concepts to more incidents and reflective memos for emergent categories until theoretical saturation is achieved (Corbin and Strauss 2008; Evans 2013; Charmaz 2014). This strategy is also used for integration of literature. Literature is compared with the data, codes, categories and memos during the study for either validation or rejection of the literature as useful for the study (Ramalho et al. 2015).

Following Charmaz’s (2014) recommendation, data analysis for constructivist grounded theory involves three coding techniques: initial coding, focused coding, and theoretical coding. Data analysis is an iterative process and is shown in figure 3.1 below. It started with the transcribing and analysis of the first two interviews for pregnant women. Initial concepts were identified which were then explored in subsequent interviews.

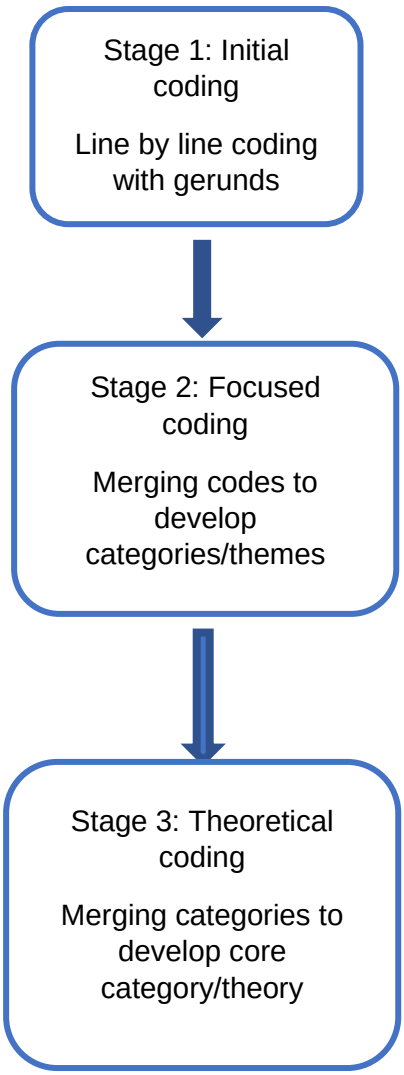


Figure 3.1 Stages in data analysis

Interview transcripts were uploaded into the NVivo Pro 12.5 (QSR Ltd) software for easy organisation and management of data. The use of a computer-assisted qualitative data analysis software program is necessary for organisation and management of data, serves as an audit trail for the data and can be used to demonstrate rigour in the process (Bringer et al. 2006). After data transcription of the interviews, interviews were subsequently uploaded into the software. The decision not to use professional transcribers even though the research was tight for time was because of the need to retain most of the colloquial use of language by the participants. It was therefore thought that professional transcribers would be unable to capture that. The NVivo software was very useful for the initial coding due to the large number of codes that were generated. However, subsequently manual analysis using notebooks and word documents was more useful in delineating thoughts and processes and viewing the data more wholly. The process of manual analysis also facilitated further discussions with supervisors for insights as clips from notebooks and word documents were easier shared for feedback.

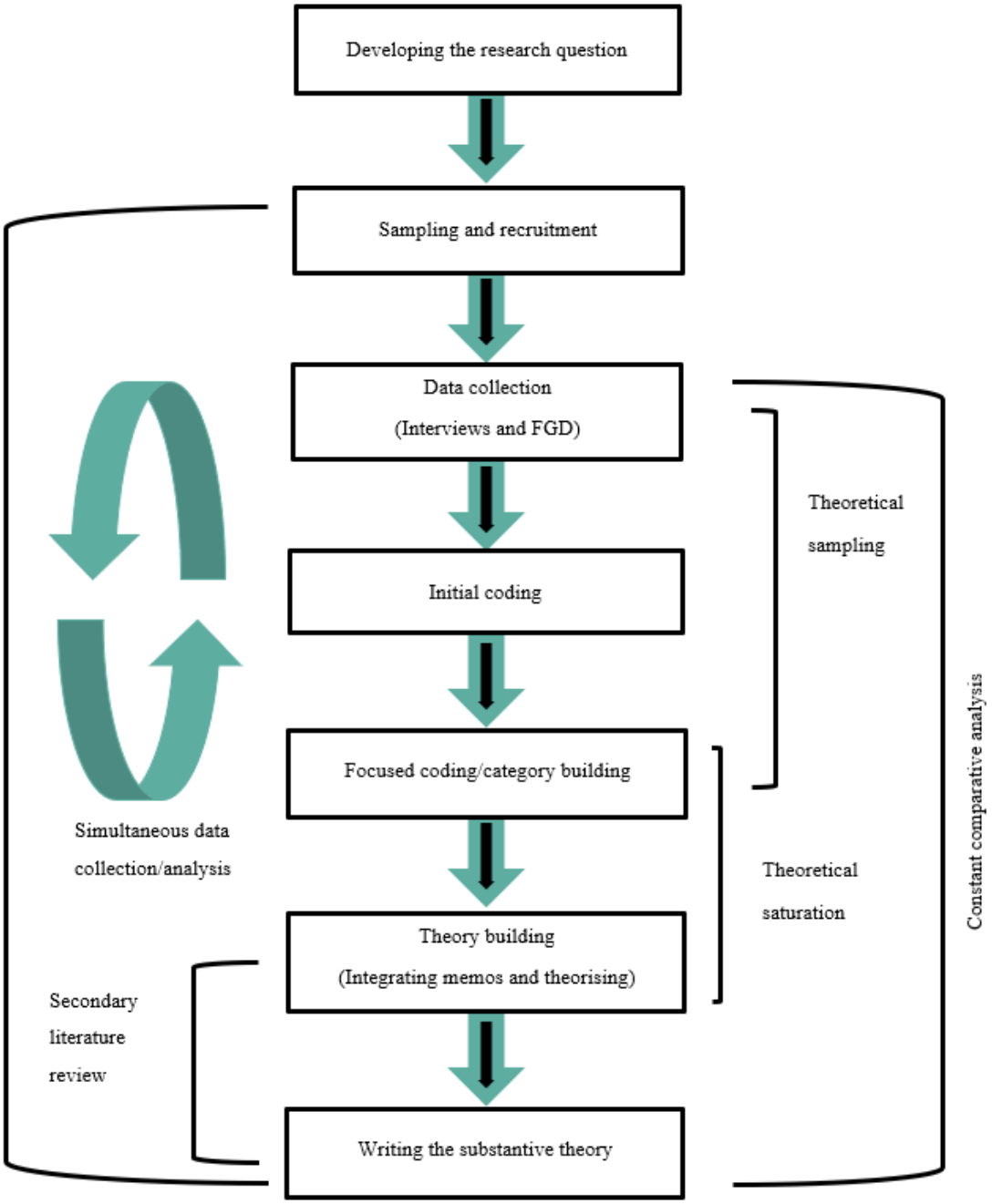


Figure 3.2 Study process involving data collection and analysis (Giles et al. 2016)

3.8.1 Initial coding

Coding initiates the “emergent” process of data analysis in grounded theory (Charmaz 2008). The first stage was the initial coding, which involved line by line coding of the transcript to develop codes. Initial coding took place immediately after each interview. This was to enable simultaneous data collection and analysis (Charmaz 2014). Following verbatim transcription of the first interview with pregnant women (001), initial line by line

coding was applied to the transcript. The decision to code after each/two interviews after was to ensure that the concepts remained fresh, closely linked to the data and in accordance with the tenets of grounded theory. Codes were developed by asking questions of the data, looking for the action, processes and meanings in the data rather than coding for the person (Giles et al. 2016). This facilitated a deeper understanding about how actions interacted within the story and kept the researcher attuned to the realities as presented by the participants views rather than an assumption.

Incidents were then compared against similar incidents, code to code to develop common themes that represent larger chunks of the data. marking similar sections or phrases that tried to explain the data using gerunds or short phrases. Initial codes were kept simple, using gerunds (short verbs) if it fit the narrative. Otherwise, participants own words were used if it conveyed the meaning and explained the processes better. It is important to note here that although Charmaz speaks about using gerunds in CGT, it is not possible in all cases and that applied in this study. An example of initial codes generated are included in table 12 in appendix. The initial coding allowed a clear overview and summary of the data. Actions and incidents were then compared with each other within the transcripts and compared with transcripts from subsequent interviews. The initial codes were treated as provisional and open to higher analytical possibilities. These codes changed sometimes slightly if at the point of comparing incidents within a transcript with incident within another transcript, there appeared to be better phrases that could capture the participants narratives and context. At that point the previous transcript might be recoded to demonstrate this higher conceptual abstraction. This is part of the process of constant comparative analysis inherent to grounded theory. Line by line coding identified significant actions/processes as well as the role that participants played within these processes and what they believed about them. For instance, in table 13 (refer to appendix), the initial coding of the interview transcript “cultural application of advice left to individual” identified what actions happened after the healthy eating advice was offered to the pregnant woman, the process and what she believed about the advice she was given.

The same process was repeated for subsequent interviews. Gaps that emerged in the data or topics that required further interrogation were noted for further exploration. For instance, the concept of African myths and taboos was noted in the first interview with pregnant women. This was noted for further exploration during subsequent interviews. Although Charmaz has advocated that these gaps noted should be interrogated further with the same participants. The nature of the interview, timing and the pandemic restrictions would have made that impossible. Therefore, these gaps were noted and explored further in subsequent interviews with other participants (Giles et al. 2016).

3.8.2 Focused coding

Initial codes that were most frequent and significant were established and grouped into themes. Focused coding involved a higher level of coding exploring relationships between themes and comparing them with new data to form categories. The data was probed for why's, what's and social processes as it related to the study's aims and objectives (Charmaz 2014). This process is not linear, it is a cyclical process as analysis had to move back and forth when there appeared new threads for analysis. The most significant/recurrent initial codes were identified that could be used to explain larger segments of data and other initial codes. These focused codes were then used to filter through large amounts of data. Focused coding was used to compare people's experiences, actions, and interpretations across interviews. At this point, codes were renamed to improve their fit.

Reflexivity, theoretical sensitivity, and memo writing helped in deciding which initial codes and focused codes could be used to categorize the data. For example, all codes which captured pregnant women's relationship with "culture" and their food such as "culture takes precedence" "retaining and eating African foods" were refined to "preference for own cultural food". This "preference for own cultural food" was raised to a focused code. Comparisons were then made by going through transcripts, looking for incidents that these processes were evident and coding accordingly. Other initial codes such as "I prefer my own African food", "I prefer my culture" that seemed to reflect the same actions and processes were coded under the focused code. This reflected what was central to the conversation. The focused codes were grouped in terms of what was important to that conversation to form a sub-category. Focused coding determines the acceptability and conceptual strength of the initial codes, whilst deciding what focused codes can be elevated to a category or a sub-category in the case of this study.

An example of a focused code is shown in table 3.3.

Table 3.3 An example of focused coding

Focused codes	Initial codes
Increasing discussions about food diversity	• Increasing discussions about food diversity • I don't know what is healthy in their food • The need for training sessions
Lack of knowledge about food diversity	• Is it really different-referring to not knowing that African food is different • Lack of understanding about different cultural diets- barrier • Lacking knowledge-midwives • They see white British diet as different
Healthy eating advice should be tailored	• Healthy eating advice should be tailored • Individualizing care • They need information specific to them • The advice should be tailored • The care is not individualized • Tailored advice • More African specific leaflets • Adapting the healthy eating guide • Healthy eating conversations can facilitate healthy eating
We need to drip feed the information	• Drip feeding information-facilitator • The need to repeat healthy eating advice • It's too much to absorb at booking • Reflecting on diversification of means of communication

Table 3.4 An example of an excerpt, initial coding, focused coding, and the category they fed into

Transcript	Line-by-line coding	Focused coding	Category
Interviewer: So okay, the National Institute of Health and Excellence 2015 maternal and child nutrition guidelines state that pregnant women attending antenatal and health visitor appointments are given advice on how to eat healthily. With that in mind, ill ask a few questions. What kind of healthy eating advice have you been given before in pregnancy? Response: When I went to the midwife, I was told eat a little bit more beans which to be fair and completely honest with you, I've not eaten baked beans since I came to this country, so they advise you to eat baked beans. It's not my own cup of tea. They advise you to eat some corn and some okra. I try to substitute what I can. They give you basically a leaflet that show you the kind of food is supposed to be eating and being pregnant, there's some food that... it's not that you don't eat them but because you are pregnant it's difficult to eat them. Take for instance fish, oh I like fish but right now, if I go close to fish, I'm gonna throw up so I won't even go near it. Even though it's part of the healthy eating, it's part of the protein they told us is good for pregnant women but even a can of sardine can make me throw up, so I won't even go near fish. So, I've tried to substitute the foods I can't eat with what I know how to eat. For example, instead of baked beans I cook my own Nigerian beans it's still beans and eat it. You understand what I mean, but there's not a wide range of food when it comes to black culture, let me put it that way or minority ethnic group. Interviewer: Okay, tell me about your gym experience, when you went to the gym? when I went to the gym, I signed up for the gym because I have a big belle. I'm not a big person, but I have a huge belle. And I was just trying to reduce the instead of wearing waist trainer. Which I don't believe in, so i was trying to see if I can get some exercise and lose weight naturally. So, I signed up to the gym and the trainer came up to us and said, If you really want to lose weight and more effectively you need to stop eating bread. You to stop eating rice, bread I can do without but rice never, because I go wherever I have a rice cooker And I'm going to pick even school run. I just put on my rice, and I'm done by then and that is done. And I'm eating. it's something I'm used to. It's not easily something that i can just put away just like that. Even when I was living outside London where there is no African food. I used to travel to London. Once a month or twice a month if you like to buy some food. So that can take it with me and put it in the freezer. Is going to be very difficult to tell somebody especially somebody, i don't know about other culture, but I'm from Nigeria and I can say about my experience about being a Nigerian. it's going to be very difficult to tell a Nigerian don't eat meat. It's going to be very difficult to tell a Nigerian don't eat rice. It's been very difficult for Nigerian to put their yam away or poundo yam or ground rice or yam flour which is Amala to put it away because this is part of our everyday life. This is what we believe, this is what we are used to.	Guidance does not take into account African foods. Difficulty navigating because of a different culture and background I am a Nigerian	Culture is important in healthy eating	Shifting cultural landscape.

3.8.3 Theoretical coding and emergence of core category

The process of theoretical coding raises the analysis from description to abstract conceptualisation (Charmaz 2014). Using the process of constant comparative analysis, codes were revisited and refined. Codes and categories were compared with written memos. In the process more memos were written to help in the conceptualisation process. This helped to develop the categories identified. Categories were iteratively compared for instance for the development of the category “navigating a shifting cultural landscape”, Analytical memos such as memo 4.2 in chapter 2 was used to untangle the meanings in the conversations and the codes, thereby recognising the navigation between culture that existed in the category.

The core category was then formed by comparing related categories and focused codes within the study. The core category embodied the central idea within the data and captured the different perspectives in the study. In this study, a focused code was used as the central idea for a core category. This focused code could not exist as a category as it had only one central theme however the decision to use this focused code as the core category lay in the fact that it embodied the central idea in the study. Initial ideas about a core category produced navigating a shifting cultural landscape as the core category. It was discarded if it did not relate the perspectives of other categories, details of which has been discussed in chapter 6. Analytical memos have been used in chapter 6 to show the development of the core category and how it interacts with the other categories.

3.8.4 Theory development

Charmaz describes a theory as an interpretation or an explanation of a substantial problem in a particular area (Charmaz 2006; Chun Tie et al. 2019). Theoretical understanding is dependent on the theorist interpretation of the studied phenomenon (Charmaz 2014). Substantive theories are generated in constructivist grounded theory due to the interpretivist underpinning (Giles et al. 2016; Glaser and Strauss 2017). The general aim of this study was to seek an understanding of the barriers and facilitators to the uptake of healthy eating advice by pregnant African immigrant women living in the UK, the perspectives of the pregnant women and their midwives. The systematic application of the grounded theory method, as described in this methods section, facilitated the emergence of a core category (process) and a substantive grounded theory, which resulted in an abstract understanding of the barriers and facilitators to the uptake of healthy eating messages. The theory developed in this study accounted for the behaviour of pregnant women when they were offered healthy eating advice. It also accounted for the decision of midwives to offer healthy eating advice to Black African immigrant women living in the UK. Existing literature was sought which

supports the emergent theory and situates the theory within the body of literature as explained in chapter 6.

The substantive theory was achieved by constant reflection on emerging concepts and categories (using memoing and constant comparison), identification of gaps and that required in-depth exploration. In addition, literature was used to strengthen emerging categories. Emerging focused codes and categories were discussed with supervisors and other researchers for expert validation. Thoughts and ideas were documented using diagrams, notes, and normal and analytic memos. Data triangulation with participants was used at different points throughout the research process to provide participants with an opportunity to contribute to the development of the theory.

3.8.5 Theoretical sensitivity

Theoretical sensitivity refers to the ability of the researcher to gain insight, to understand and interpret data, and to distinguish what is relevant from what is irrelevant to separate what is relevant from what is irrelevant (Strauss and Corbin 1998; Giles et al. 2013; Giles et al. 2016). Theoretical sensitivity, which is an integral step to theory development in grounded theory was achieved by the following

A. Supervisors and experts in the field were used as sources of interactions to aid in theoretical sensitivity throughout the duration of the study.
B. Building on ideas from the initial PPI interviews and lay people.
C. Reflexivity was used all through the data analysis and write up to account for the researchers positioning, past experiences and previous expectations about the study.
D. Following emerging concepts from the data analysis to inform questions for subsequent interviews.
E. Following lead questions until theoretical saturation is achieved
F. Comparing diverse points of views and ensuring that these points of view are captured within the study.
G. Data was analysed using constant comparative analysis.

3.8.6 Memo writing

Memo writing is a fundamental principle of grounded theory (Giles et al. 2016). Memos notes that are kept continuously recording the researchers thoughts and ideas (Maz 2013), they are used to demonstrate rigour and trustworthiness in grounded theory research. Memos have been considered as essential in grounded theory as it stores the ideas as generated

and documented. Memoing was used throughout this study to actively interact with the data, raise analytical power of the analysis (analytical memo), to document thoughts regarding the interview process (normal memo). All through the writeup, examples of memos used have been highlighted. Memos were written after interviews, after transcription, at the point of upload on the computer software, after coding and during the process of writing up. Memos were used to direct data collection in this study, for example Memo 4.1(Chapter 4) was used to clarify the emergence of culture as an initial code while memo 4.2(Chapter 4) was used to direct further data collection while raising analytical power to a focused code. Memos were also used to document how codes linked and how categories emerged in the study. Memos were also used in this study to show the process through which the theory emerged example memo 6.1(see Chapter 6)

3.8.7 Theoretical saturation

The goal of theoretical saturation or theoretical sufficiency in grounded theory is achieved when new cases do not bring new “insights” and no new codes can be generated (Charmaz 2014). Specifically, in grounded theory saturation is achieved when all categories of the theory have been fully explored(Glaser et al. 1967; Glaser and Strauss 2017). That would mean including as many participants as necessary that would achieve that goal (Dey 1999) cited in (Maz 2013). At this point coding and data collection can cease. This concept of “saturation” in qualitative research has been criticised, basically because there can be no guarantee of saturation as there are multiple realities experienced by the participants (Thornberg 2012). However, as Glaser 2001 explained, theoretical saturation can be said to be achieved if patterns in the data is not repetitive. Theoretical saturation was achieved in this study when it was felt during analysis by the researcher that new patterns were not emerging from constant comparative analysis of the data. At the point where well defined theoretical categories were developed from the interviews from pregnant women and midwives, data collection was stopped.

3.9 Rigour and Trustworthiness

The importance of rigour in grounded theory has been emphasized, in addition to the importance of transparency in applying the grounded theory approach, which accounts for the study’s credibility (Tucker et al. 2016). Although several debates exists as to what defines the quality of qualitative research in comparison to quantitative research. However, all research must demonstrate rigour and quality in that it must show how transferable(applicable), credible(true), dependable(consistent) and confirmable the evidence as presented is (Korstjens and Moser 2018). This is to ensure that the research is protected from bias and to avoid methodological vulnerability. For instance, Ramalho et al.

(2015) highlights the importance of reducing methodological vulnerability by avoiding preconceived assumptions (data contamination) which are informed by early literature review and its effect on the research data. Hall and Callery (2001) advocates for reflexivity as integral to the process of qualitative research, suggesting that reflexivity addresses "data contamination", which is one of the concerns of the earlier Glaserian concept of Grounded theory. Therefore, for this study, the researcher, having conducted a preliminary literature review, adopted a reflexive stance to data collection and analysis. Reflexivity was shown by clarifying the researcher's philosophical position (see chapter 3, section 3.3) before the commencement of data collection. In addition, the researcher set aside her personal and professional influence on the research (see chapter 1, section 1.9) informed by personal experience and preliminary data collection until the study's categories were formed. There was also a constant clarification throughout the research on instances to which external data was used to strengthen the developing arguments as the theory was developing. Other steps were taken to ensure rigour throughout the study and are explained below

Transferability

To demonstrate that the findings of this study may be applicable to similar contexts or individuals as highlighted by Lincoln et al (2011), the specific context to which the study occurred was clarified throughout the research including environment. Additionally, demographic details of participants (age, ethnicity, and length of residence in the UK) as deemed important were collected during interviews and reported.

Credibility

There are a variety of approaches to judge the credibility of research findings. Data triangulation has been suggested by Charmaz (2014) to ensure credibility of the study and is defined as exploring and interpreting the data through multiple perspectives (Guion et al 2011, Charmaz 2014) in order to validate the researcher's interpretation of the data. In this study, data triangulation was achieved in several ways. Firstly, concepts which emerged from interviews were explored in subsequent interviews and across different data sets (pregnant women and midwives). Participants were then able to either validate or elaborate on emerging discussions/themes and the researcher's interpretation of them. Secondly further data triangulation occurred during the analysis process between the researcher and supervisors. Transcripts of interviews and emerging categories/themes were discussed with supervisors (including an expert in qualitative research), which helped validate, lend credence and/or highlight potential sources of bias. Thirdly, participants quotes were considered very important aspects of this study as it reflected the participants voices which provided substantive evidence leading to the findings of the study. Finally, multiple

perspectives to questions in study were presented as discussed by participants, showing that preconceived ideas from the researcher was not “forced” on the data.

Other methods suggested to ensure credibility includes member checking (Birt et al. 2016) which involves sending data or results back to participants to check for resonance or accuracy. In this study, participants transcripts were returned to those who indicated interest to read if it accurately captured their experiences. Additionally, Korstjens and Moser (2018) suggests prolonged engagement with the participants world. In this study, this was achieved by PPI engagements and using community gatekeepers including church leaders.

Dependability

As suggested by Foley and Timonen (2015), an audit trail of key methodological decisions, actions and procedures were documented throughout the process of data collection, interpretation and analysis using memos. The memos provided accurately documented details of the researcher’s reflections on the interviews, insights into the emerging themes and the process of emergence. The memos (analytical and reflective) used throughout the study enhanced theoretical sensitivity and provided a transparent documentation showing the process to which the theory emerged from the data.

Confirmability

Confirmability is concerned with the integrity of the research findings. This is achieved by ensuring that credibility, transferability, and dependability have been achieved (Moules et al 2017). In addition, Charmaz (2014) suggests that confirmability in grounded theory is concerned with attending to the effects of researcher-participant interactions which includes acknowledging your role as a researcher and how that influences the research. In addition to reflexivity, mentioned earlier, bias was further reduced by the researcher making a conscious effort to maintain open conversations during the data collection using open ended questions.

3.9 Summary

This chapter has provided a detailed description of how the PhD study was conducted. Constructivist grounded theory with constant comparative analysis was used in the study, guided by the aims and objectives of the research and the nascent nature of the research. Constant comparative analysis resulted in the development of a substantive theory that explained pregnant black African immigrant women's interaction with healthy eating advice offered in pregnancy and the antenatal care system in general. It also explained midwives' inclination to offer healthy eating advice to pregnant African immigrant women. Ethical considerations were duly observed. The next chapter reports findings from interviews with pregnant women.

Chapter 4 Findings- pregnant women

4.1 Introduction

This chapter presents the findings from the data analysis from pregnant women in this study. The chapter is divided into sections. The first section presents an overview of the demographic details of all the participants involved in the study, including midwives, and the second section reports findings from the analysis of data from pregnant women as it was constructed and shaped by initial/focused coding, theoretical sampling, categorising, constant comparative analysis and memoing as detailed previously in chapter 3. The data analysis from interviews with pregnant women constructed four theoretical categories that gave insight into the factors influencing Black African immigrant women's interaction with healthy eating advice in the UK. These are 'navigating a shifting cultural landscape, focused on the slippery slope that participants were constantly on in relation to dietary advice in the UK', 'blending in, focused on the women's process of acculturation', 'negotiating for help, focused on participants efforts to get the healthy eating help that they required', while 'my healthy eating needs, elucidates the other factors that the women considered important in meeting their healthy eating needs.

4.2 Demographic details of the participants

Twenty-six women, seven pregnant women and nineteen midwives participated in twenty-two in-depth interviews and two focus group discussions. The focus group discussions consisted of two midwives each. Although many midwives had expressed an interest in participating, the challenges of the pandemic meant that only two were able to attend on each occasion. The interviews lasted an average of 60-90 minutes for the pregnant women and 30-60 minutes for the midwives. Twenty-three interviews were conducted via either Microsoft teams or zoom, and the remaining interview was conducted half by telephone and the remaining half by zoom.

All the participants met the inclusion criteria detailed in chapter 3 (see tables 3.1 and 3.2). The participants could communicate in English; therefore, there was no need to translate into pidgin as the protocol entailed. Most participants were able to reflect on their interaction with healthy eating advice in the UK, what they understood about healthy eating and the strategies they employed to meet their healthy eating needs.

All children of the participants were born in the UK, and the discussions related to their experiences of being pregnant in the UK. Participants' demographic details are presented in tables 4.1 for pregnant women and 4.2 for the midwives.

Table 4.1: Pregnant women demographics

Age (years)	
0-18 years	*
19-28 years	2
29-39 years	4
40-49 years	1
50+	*
Level of education	
No formal schooling	*
Elementary/primary schooling	*
Secondary/high school diploma or equivalent	1
College degree	2
Bachelor's degree	1
Postgraduate diploma	2
Master's degree	1
Doctorate degree	*
Country of birth	
Nigeria	6
United Kingdom	1
Marital status	
Married	4
Divorced	*
Civil partnership	*
Separated	*
Single	3
Widowed	*
Length of residence in the UK	
Less than a year	*
1-5 years	3

6-9 years	1
10-14 years	*
15 years and above	3
Existing condition that requires dietary management	
Diabetes	*
Hypertension	*
Anaemia	*
Coeliac disease	*
Others	*
Trimester	
First (0-12 weeks)	*
Second (13-27 weeks)	1
Third trimester (28-43 weeks)	6
BMI	
None recorded	2
<30	1
30 -39.9	3
40 and above	1
Parity	
Primiparous	1
Multiparous	6

Table 4.2: Midwives demographics

Age (years)	
18-28 years	4
29-39 years	7
40-49 years	4
50+	4
Level of education	
Secondary/high school diploma or equivalent	*
Diploma in midwifery	
College degree	4
Bachelor's degree	*
Master's degree	13
Doctorate degree	2
	*
Country of birth	
Germany	1
United Kingdom	15
Poland	1
Sri Lanka	1
Burundi	1
Nationality	
German	1
Polish	1
Black British/Nigerian	2
Black British	1
British	12
Welsh	1
Sri Lankan	1

Race	
Caucasian	12
Blacks	6
Asian	1
Years of experience	
Less than a year	*
1-5 years	10
6-10 years	1
10-15 years	5
15 years and above	3

*Unapplicable data

4.3 Building theoretical categories

Building theoretical categories gives insights into the furtherance of the analysis which is beyond a descriptive account of the interview. Theoretical categories are a common phenomenon in all schools of grounded theory. A category in grounded theory is discovered by constant comparative analysis of many incidents with incidents and incidents with concepts generated within the theoretically sampled data until theoretical saturation is reached. This comparison shows a pattern and sub patterns which carry the properties of the category (Glaser 2002). A category in grounded theory is not forced, it is generated from the data and reveals patterns that explain social processes in the area that is being investigated. Therefore, although there were pre-existing objectives for the study, they were not forced on the data as preconceived ideas, the objectives served as the guiding light in the analysis of data, helping me to pick up on sensitizing concepts (Charmaz 2006; pg. 85).

In constructivist grounded theory, category development focuses on generating an understanding about the experiences of people in the phenomenon being studied using multiple narratives and observations (Hallberg 2006). Words are constantly being fit into the category that would best capture the meaning and property of the category. The emergent valid category captures the essence of the narrative and is grounded in the data (Hallberg 2006; Mills et al 2006). Through the process of data analysis, as the categories emerged, theoretical sampling was pursued to allow for further exploration of categories that had been constructed. The initial sampling decisions were based on the general problem. However, once coding began, all areas that seemed relevant were pursued until the categories and the theory began to emerge. Memo writing was used as a source of further data and to raise the theoretical and analytical sensitivity of the write up. All through the write-up a selection of memos has been used. Some of the memo writing included relevant literature to the discussion that has been raised. Cross referencing to literature was also used to raise the analytical sensitivity of the writeup. Literature has been used as a conceptual force in presenting further analytical insight.

Each category narrative is presented from the participants perspective. Quotations from participants data are used to support each category and sub-category. Quotations are chosen based on relevance, frequency and to show significance in the data. Care was taken to preserve as much of the verbatim text as possible in the participants own words. Alterations in the quotes referred to repetitive words. Phrases that signified hesitation such

as ‘ermm’ were included for emphasis purposes as they also lent unspoken context to the writing.

In presenting the categories derived from the narratives, centre stage diagramming generation was used (Williams and Keady 2012). The centre stage consisted of what was important in terms of the barriers and facilitators to the uptake of healthy eating messages. The centre stage was used as a prompt to develop answers to “what” and the “who” that were relevant as barriers and facilitators to the uptake of healthy eating messages. The centre stage diagram is presented in figure 4.1 below. The centre stage diagram shows dynamic relationships between categories and sub-categories.

Due to the nature of the research, timing, lockdown issues during the pandemic participants were not revisited to pursue topics of interest as constructivist grounded theory entails. To actively pursue the principle of theoretical sampling developing from purposive sampling as the principles of grounded theory entails. Rather, in the process of transcribing and analysis, emerging indicators and concepts from the data were noted and were pursued with subsequent participants until theoretical saturation was reached.

4.4 Barriers and Facilitator to the uptake of healthy eating messages: Pregnant women perspectives

Four categories emerged from the analysis of data from interviews with pregnant women. The findings are presented in the order to which the categories emerged from the narration. When participants discussed their interactions with healthy eating advice, their narrations focused on culture and how culture influenced their perception of healthy eating and the part in which culture played in understanding the meaning of healthy eating. The discussion then expanded to include their processes of adapting in the new environment that they had come into, which is known as acculturation. The participants went further to explore their help seeking processes with regard to healthy eating and went further to explore the factors that hampered their healthy eating behaviour. The exploration of these narratives presented pregnant women interactions with healthy eating advice that was offered in pregnancy. Please see the categories and sub-categories in figure 4.1

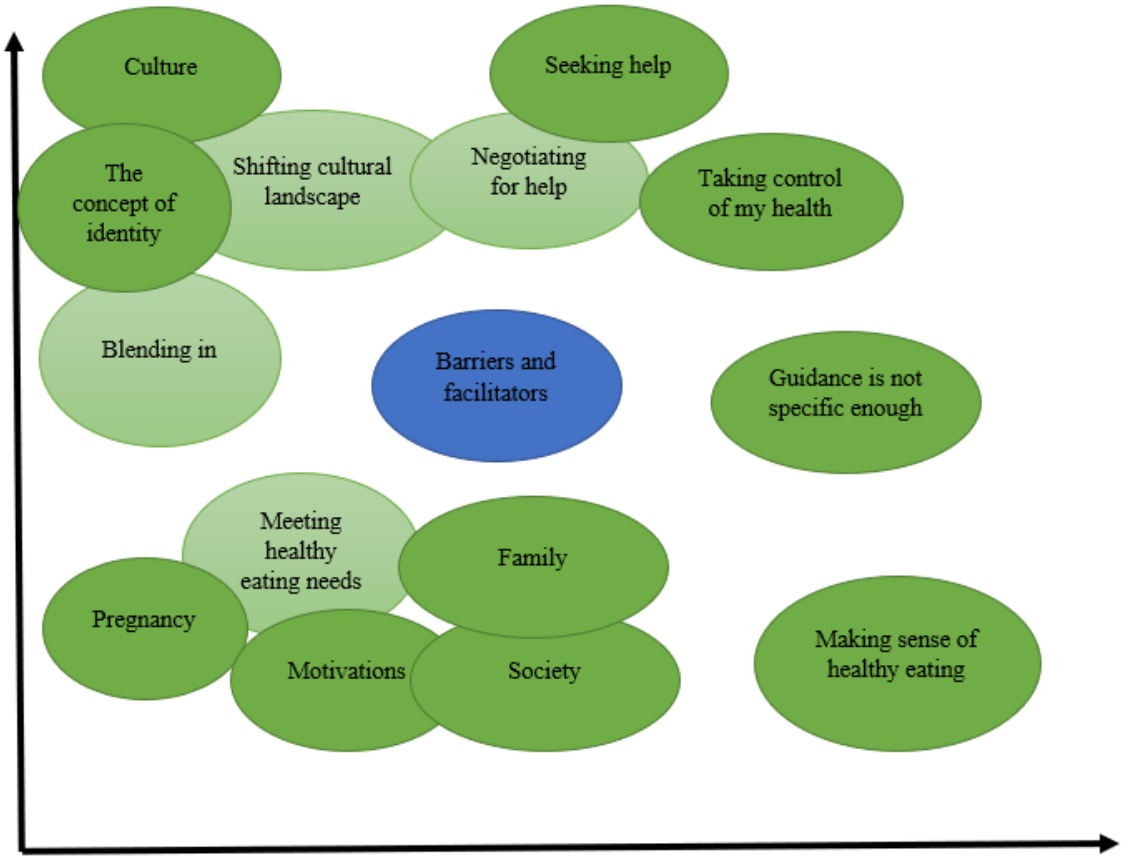
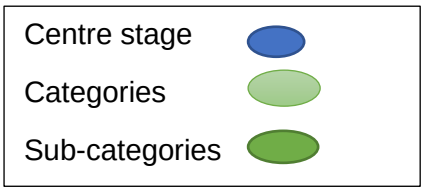


Figure 4.1 Centre stage diagram showing the categories and sub-categories



4.4.1 Theoretical category: Navigating a shifting cultural landscape

The first category that emerged was “navigating a shifting cultural landscape”. Navigating a shifting cultural landscape was recognised from the first questions that was asked about the women’s definition of healthy eating. From the first interview, participant 1, discussed what she understood by healthy eating. She explained that the meaning of healthy eating was different in different cultures. From then on culture became a phenomenon in the interviews. Culture was referred to in terms of understanding the meaning of healthy eating (*making sense of healthy eating*), how the definition of healthy eating fit in with their culture (*culture is important in healthy eating*) and maintaining their African cultural identity (*the concept of*

identity). Each pregnant woman within the study described their thoughts about healthy eating, meeting with midwives, receiving healthy eating advice and gave reasons for their engagement/non-engagement with the advice. Figure 4.1 below is used to illustrate the category, sub-categories, sections, and focused codes that make up the category.

Figure 4.2: Diagram illustrating category 1, sub-categories, sections, and focused codes that make up the category.

According to the Cambridge dictionary, to navigate means to deal effectively with a difficult situation (Cambridge 2019) while shifting is defined as changing all the time. Landscape is defined as all the features of a situation. Therefore, navigating a shifting cultural landscape was used to refer to the women constantly trying to make sense of the information that they were given during pregnancy, being juxtaposed with their existing knowledge about healthy eating. The findings in the category referenced the process that pregnant women encountered when they accessed the maternity care system. Before accessing the maternity care system, most of the women were on a 'dieting' journey, an eating journey. However, they only ate the foods that they were used to. The process of migration, globalization and international trading has made it possible that individuals had access to foods that previously only existed in their home country. Therefore, eating only the foods that they were used to or comfortable with was certainly possible. The "dieting" journey had hitherto been done with their ethnic foods and most of the women did not see any need to change that. Some of the women who changed their eating habits before pregnancy found that it was difficult to sustain the new eating habit, therefore they always went back to their cultural food. Gaining entrance into the maternity care system seemed to be a significant component of women's antenatal care. One of the processes associated with the maternity care system is that midwives offer women healthy eating advice as part of the National Institute of Health and Care Excellence clinical guidelines for pregnancy. The entry into the maternity care system came with a shift in the cultural balance. Pregnant women had to consider what this meant for them. I will further explore the data to elaborate the different ways that the women struggled to understand healthy eating and maintain a balance between the two cultures.

… I signed up for the gym because I have a big belle. I'm not a big person, but I have a huge belle. And I was just trying to reduce the belle instead of wearing waist trainer… So, I signed up to the gym and the trainer came up to us and said, If you really want to lose weight and more effectively you need to stop eating bread. You need to stop eating rice, bread I can do without bread but rice never". P4

"It's going to be very difficult to tell somebody especially somebody, I don't know about other culture, but I'm from Nigeria and I can say about my experience about being a Nigerian. it's going to be very difficult to tell a Nigerian don't eat meat. It's going to be very difficult to tell a Nigerian don't eat rice. It's been very difficult for Nigerian to put their yam away or poundo yam or ground rice or yam flour which is Amala to put it away because this is part of our everyday life. This is what we believe, this is what we are used to. We believe if I eat poundo yam I will be full. We don't believe in starters and main meal and desserts. We don't

believe in it. I didn't grow up like that. I grew up eating this one giant meal and that's it. I'm not used to eating small portions of food". P4

Below is an example of a memo from the first and second interviews, which was used to reflect on the concept of culture and provided a strong basis for the initial code and focused code.

Memo 1-Culture as an initial code towards the development of a focused code

Culture is reflected upon from this first interview, from the first question. This participant defines healthy eating from the perspective of culture. It is apparent that this has been a definition she has kept over the years. There is no hesitation as she starts talking about the different foods in the host country and how she does not consider them as healthy. She is quite knowledgeable about her foods and health status.

"*Because in Nigeria, what is healthy eating there might not be healthy eating here*", Probing for further explanation, she talks about sandwiches not being considered as healthy in Nigeria.

All through the interview, she always comes back to the concept of culture, over and over again. It is clear that even though she is living here in the UK now, there are no intentions to change her cultural foods. She talks about having access to her own cultural foods, including the willingness of her husband to travel miles to get her what she wants. There is clearly some sort of frustration when she talks about her difficulty in substituting the foods in the healthy eating guide, she was offered in the hospital with the foods that she was used to eating. She uses words like "*forcing myself to look for something close*". She has changed her eating habits in pregnancy and the change is voluntary, but the change is not easy for her because the foods offered is not what she is used to. She is trying to make the changes, but she is doing them on her own. She talks about cultural familiarity or cultural acceptance as a reason for refusing foods that were considered as healthy in her now host country.

Culture is raised again towards the end of the interview when she talks about factors that influence her food choices. Culture is mentioned in the form of African beliefs/myths. The effect of African beliefs/myths on her is explored. Healthy eating advice she has received from family is in the form of myths. Although she is sceptical about the advice offered by family and friends, there is a thread of fear that runs through the conversation. There are some pauses where she reflects and then she talks about the apparent fear that a refusal might harm the child.

"*I used to eat it sometimes, but they keep saying it and you would wonder if they are right, what if they are right and I would regret it. So, there are some foods I stopped eating based on African myth, not because they are fact. Not because they are true, just because it is the belief".*

but because they said it would cause problems for you then … there was one food they said that if I ate my baby will have ringworm. You know they just bring something up or they say he's going to have decolourization of skin. They just say something, and you don't want that to happen to your baby even if you are not sure that they are saying what is true, but you know at times I think our families, the people around us, they tend to influence what we see as good or bad. So that's just what I think.

Participant 1 has made claims about the influence of culture, I have decided to explore culture as a theme in the understanding of the concept and question of healthy eating. I have also decided to explore African beliefs and its effect on food choices or general lifestyle in subsequent interviews.

Initial codes such as healthy eating varies from culture to culture, culture is important in healthy eating, following African myths were noted and the codes were pursued in subsequent interviews.

Culture was not a major question in the design of the interview guide. Culture was mentioned in the interview guide as a probe on influences on food choices and relevance of the healthy eating guide. The probes also existed with other probes such as distance, time, taste/personal preference, finance. There were not initial questions and therefore could not have influenced the participants thought processes. Prior to the participant talking about culture, there had not been any questions that were leading questions. Therefore, the concept of culture seemed to have sprang from the conversation and developed a life of its own.

Memo 2- Raising analytical power and getting focused codes- after interview 2 (pregnant woman)

I recognise a constant movement from one culture to another, there is also a clash of cultures and a pull in different directions. Trying to meet healthy eating needs is not as easy as it should have been. To avoid leading with concepts from the previous interview, but with a guiding light from budding concepts in the first interview, interview 2 is started with the interview guide questions. Participant 2's mention of cultural clash and movement starts with when healthy eating advice was offered in the hospital.

I'm actually Oh, I've gotten a lot, when I was at my second trimester, I think the early stage of my second trimester, I was invited to the hospital. And I was actually spoken to about Eatwell. So, they I was given a paper that has Eatwell guide, like, there's a round plate that has a division of different kinds of like protein, carbs, and things, you know, they actually put them in order, of how we can actually consume them in there. And they actually advise me that I should substitute like white bread, for example, with brown bread brown rice with white,

Participant 2 sees this advice in a positive light. She likes the new advice. She views her cultural food as being too heavy and full of oil.

"you know regarding our own culture, most of the foods we eat can actually be fattening because of the way we cook them. So, it was really really helpful. Because if I wanna make vegetable soup for instance I use palm oil and the amount of palm oil I'm going to put in it by the time I finish making it, it's gonna be swimming on top of it so. You know all those bits, so I'm able to kind of reduce it. I started introducing kale into my vegetable, and instead of having rice for breakfast, I started having like cereals. And not just any kind of cereal, you know like porridge you know or Weetabix. So, it's really good. It's really really helpful honestly because being a Nigerian, we don't eat cereal in the morning. I don't know about people that have those luxuries but me for example we will drink pap and akara or moimoi. Moimoi is good as well. Infact because of the advice I did moimoi as well for myself. And I started eating lentils. You know lentils"?

She sees the substitution of her cultural meals as an important part of being healthy. She mentions other factors to be relevant in her choice of healthy eating, chief of which is taste, personal preference, and finances. However, I have noticed that there is a transition, participant 2 does not talk about embracing all of the new foods that she has been offered. She talks about moving from one cultural food to another and even preparing and adapting some foods in the host country into her cultural food.

so, I started eating lentils, so instead of having akara, I changed it to moimoi instead. So, I feel moimoi is better instead of having akara because I feel akara is going to get into oil. Like soaked in oil for a while so it's really good, it's really been helpful for me.

The introduction of lentils, the subtle change like adding kale shows movement between the two cultures. She then goes further to talk about what she would really like

"well to be honest it does because I don't cook my food alone. I have my family as well; I would have loved that leaflet to have something like my African foods tailored in the same way as the English one is done so that …you understand. It really matters, it matters to me. I would have really loved if it's like eating what's it called, if I am eating my ewedu and amala, the portion that I can actually eat it with. You know things like that, and it would have been more fun as well".

Even though she has substituted, she has not let go of her culture. She wants to eat her cultural foods. She would prefer that her cultural foods are tailored.

culture matters a lot to be honest. Like some people, they can't do without eating cheese. I don't like cheese. The only cheese I can say I like is mozzarella cheese and it's like our wara. I don't know if you know wara in Nigeria. The goat cheese wara

I recognise food crisis, deep yearning to be healthy but facing a crisis in the choices that have been made available to her. There are the things that she grew up with and probably what her family including her husband is used to eating being juxtaposed with options she has been offered. I am using initial codes like "facing food crisis due to differences in food". I recognise that like the first participant, culture is very important to her. The difference is that she wants the healthy aspects of her culture.

Another aspect of culture has been recognised and it is linked with African myths.

Obviously, I am a Nigerian, I can't erase that. There is always a myth of don't eat this or don't eat that like don't eat snail, don't eat liver but those are the things that they are advising us to eat here so all those myths I didn't follow. Because I don't have anyone to help me, I have to do things my own way.

She has recognised that there are African myths, and she was advised to follow them. She has however taken the decision not to follow.

I continue to recognise the process of navigation between cultures from the two participants so far although from different contexts. Focused codes such as culture is important in healthy eating was used to aggregate the initial codes.

Point to consider

1. There are contrasting opinions about the healthiness of cultural foods from the 2 participants. Participant 1 sees cultural foods as being more healthy while participant 2 sees cultural foods as being less healthy. The underlying theme is the desirability and the importance of cultural foods.
2. Less obvious thread is the concept of blending in. This blending in is not a conscious process.

Memo 4.2 Navigating culture

Memo 4.1 and 4.2 highlights the emergence of culture as being central to the discussions regarding healthy eating. The women gave accounts of their understanding about healthy eating. They talked about healthy eating being about culture and their preference for cultural foods. The category is divided into sub-categories, sections, and focused codes to aid understanding.

4.4.1.1 Sub-category: Culture is important in healthy eating

This sub-category refers to answers that depicted culture when pregnant women responded to their understanding about healthy eating.

Interviewer: What is your understanding about healthy eating?

The answers that the question above elicited has been captured using 2 sections within this sub-category.

4.4.1.1.1 Section 1: Healthy eating

"…Let me just say from my Nigerian perspective, eating what is balanced, eating a diet that is balanced. You know ermm diet that has almost all nutrients. And ermm that is good for your body. I think that is what healthy eating is and it varies from culture to culture because in Nigeria what is healthy eating there might not be healthy eating here. That's just what I think". P1

Participants responded to the question regarding their understanding of healthy eating by reflecting on the role of culture in developing understanding about healthy eating. It is important to note that this focused code arose from questions regarding what the participants considered as "their understanding of healthy eating". Participant 1 stated that *healthy eating varies from culture to culture*. An initial code was used to capture this quote "*culture is important in healthy eating*" and "*healthy eating varies from culture to culture*" which later merged and metamorphosized to a focused code "*healthy eating varies from culture to culture*". This captured the essence that participants believed that culture was an important component when healthy eating was defined. This process of obtaining the focused codes from the initial codes is captured in the appendix.

Participant 5 reiterated the idea regarding the importance of culture by defining her understanding of healthy eating using her "home country's" meal.

"By eating various foods that you know will give you nutrients. Like Amala in my home country, iyon, ewedu". P5

Participant 1 further clarified what she meant by "*healthy eating varies from culture to culture*" using what was considered a staple food in her host country "bread" in her analysis.

"I observe that they eat lots of bread, I mean what they call toasts, sandwich, different kinds of thing, but in Nigeria, it wasn't something of ehmm it wasn't what I used to consider healthy you know, I prefer to take something like, something liquid, something like ehmm you know, this pap that we take in Africa and stuff like that with bean cake…". P1

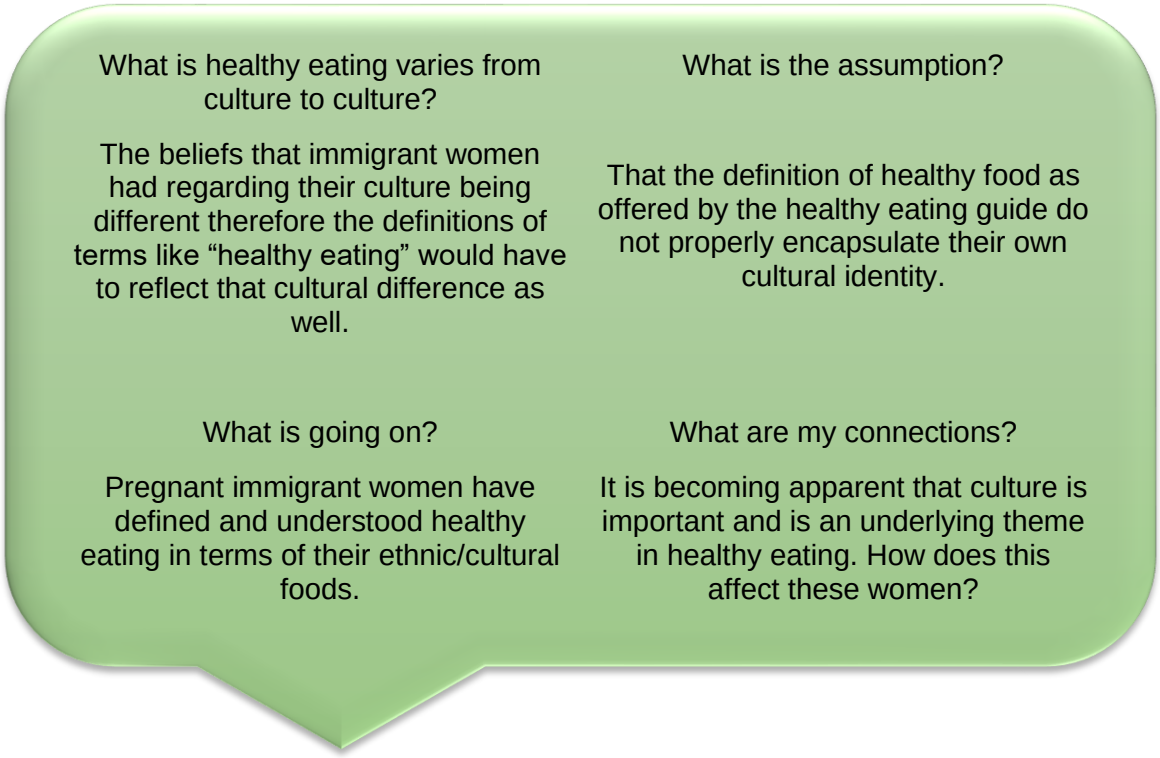
The idea that she thought that "bread", which is a major staple food in the healthy eating guide was unhealthy reflected the pre-conceived assumptions about what foods were healthy and what were not, that the participant had, had prior to moving to a new country.

Further explaining her position, she went on to reflect on flour in general and her thoughts regarding flour.

They take ehmm lots of flour then maybe they will put some veggies in it, they name it whatever they want to. I just feel…here too it is healthy, that's not the way it is seen in

Nigeria. So, I just feel probably it is based on the food available in different regions. So, that's what I think". P1

The insights from these two participants on their understanding of healthy eating were significant and posit an argument regarding people's knowledge about healthy eating. All the pregnant participants but one had stated that they had not received any healthy eating advice from healthcare professionals in their country of origin before arriving in the United Kingdom. Therefore, it can be assumed that what knowledge regarding healthy eating they had acquired previously was acquired from their interactions with their environment before migration. Regarding healthy eating knowledge in this study, other participants reflected on their knowledge regarding healthy eating. These have been presented in the next sub-category. A memo (memo 4.3) was used to further expound on the underlying cultural theme in this focused code that was developing.



Memo 4.3 Reflective memo

Collectively pregnant participants assumed that their knowledge and understanding regarding healthy eating was enough and was culturally related. This knowledge *"healthy eating varies from culture to culture"* influenced their interactions with the healthy eating advice offered by midwives. This reflected the shifting cultural balance that they experienced

as they navigated the antenatal care system. As further cases were compared against the emerging category, it became apparent that culture was a principal determinant of their interactions with advice offered.

At this point in the analysis, initial codes were arranged in a table, to try and form meaningful connections between the data as reflected in appendix 3, table 12 (Morse et al 2009). The resulting connections identified connections between codes and improved understanding regarding the relationship between analyses. The resulting connection though short further buttressed the importance of culture in healthy eating using the type of food that the participant was used to; as reflected in the quote below.

"Culture matters a lot to be honest. Like some people, they can't do without eating cheese. I don't like cheese…

"It's a bit difficult when you are from different culture and from different background. For example, if you give me lasagna now you are backing at the wrong tree because I'm not going to eat it". P4

Culture became the underlying theme that ran through all the conversations with the pregnant participants. Culture influenced their decision to eat, and their decision about handling the healthy eating advice that was offered. It has been acknowledged by almost all the participants that healthy eating advice of some sort was offered. To convey their own meaning to the effect that culture had with their daily experiences, participants began to elucidate on their preferences.

4.4.1.1.2 Section 2: Preferences

As interviews progressed, pregnant women talked about their preferences. Four properties (focused codes), 'preference for own cultural food', 'starting a new culture/change is difficult', 'there are cultural beliefs/myths', and 'perception of weight gain' emerged from the comparative analysis.

'Preference for own cultural food' identified what the pregnant women would prefer and the lengths they were willing to travel to purchase what they wanted.

"*it's something I'm used to. It's not easily something that I can just put away just like that. Even when I was living outside London where there is no African food. I used to travel to London. Once a month or twice a month if you like to buy some food. So that can take it with me and put it in the freezer…".* P4

"What is important to me is what I am used to before I came into this country. There are a lot of foods available on the street that I live on and as such I can get them whenever I want but

I will stick with what I am used to for instance for fruits like grapes, apple, banana, melon. I also have access to my cultural foods here in the UK, I get it from Peckham, so I can go and get it not minding the distance because that is what I am comfortable with". P5

"I would say culture because ermm I have tried to eat only what Is available but it's not working. I still need to eat those African foods. Even when I am eating my veggies, that meat sometimes is kpomo and shaki". P7

The above quotes represent core influences to eating decisions by pregnant women. The initial codes such as "I prefer my culture",

"I prefer my own African food" "my cultural food is available" and "going the extra mile to get cultural food" identified that women reflected on what was available in her environment, acknowledging that her cultural food was available. "Going the extra mile to get cultural food" reiterated the participants commitment to her cultural food. At the same time, participants described a willingness to change their eating habits in tandem with the new guidelines that have been issued. They however said that the change was difficult to sustain. This is seen as trying to navigate a difficult situation.

In terms of "preference for own cultural foods", the notion that Black African immigrant women maintain their own cultural eating pattern in pregnancy has been recognized in literature. Two studies included in Ngongalah et al. (2018) review of the dietary and physical activity behaviors of African migrant women living in High income countries, suggested that African migrant pregnant women strictly maintained their dietary pattern. Consumption of western-style processed foods for the women in those studies were extremely low.

As analysis progressed, it became apparent that what the pregnant women preferred impacted their decision on how food was purchased. Further exploration of the concept led to the women reflecting on the difficulty that being introduced to a new culture posed. Focused codes such as "Forcing a new culture", "change is difficult" and "there are cultural norms/myths" were useful to explore why having preferences for own cultural food was important.

'Forcing a new culture' was seen as participants reflection regarding the healthy eating advice that was offered. It seemed the participants were not offered alternatives and therefore they felt that midwives were 'forcing a new culture' on them by the introduction of healthy eating advice. Initial codes such as "*worried that they are taking it away*" and *"worried that a new culture is being forced"* were used to capture participants views.

"it's really hard, old habits die really hard. You can't get it's hard to change your dog to teach an old dog new tricks is going to be very difficult. you understand what I'm trying to say. So

instead of forcing this habit on me, why don't you help me with what I know best and help me to change it in a way that will also benefit me. you understand what i mean".

Some of the participants acknowledged that change was a difficult process and would require a lot of work. Drawing from past experiences in weight loss, some participants reflected on their journey and the difficulty they encountered in trying to adapt to a new way of eating to get healthy.

Forcing a new culture also reflected the women's expectation and frustrations, the expectations from the healthcare system and the frustration that this expectation was not met.

"They talked to me about the normal food they eat here in the UK, but I'm not used to it, I prefer to get my own African food". P5

I just try and shovel it together, but they can't deny me of my African food, because I am

not used to their food. So, I just mix it together and try to make it balanced". P6

There were other cultural influences on dietary habits that were not related to food. Participant one introduced the concept of beliefs and myths.

"*You know we have some African beliefs; I can't call it a fact, I will call it myths because it is not scientifically proven but then they will call me from Africa and say … don't eat this particular food, it's not good for you and the baby*" …

"*But in Africa there are some foods that are considered not good for you to eat during pregnancy. And personally, out of fear, not because I don't know that they are wrong. Sometimes I say, I think what you are saying is wrong but I'm just like let me be on the safe side and then I don't eat those foods for example my sister-in-law has told me not to eat plantain, she says when you eat plantain, something comes on the baby's head or something*". P1

Although, all the participants acknowledged the presence of cultural myths and taboos especially in pregnancy, three participants accepted that they participated in cultural myths and taboos. Other participants stated that though they acknowledged that there were cultural myths/taboos in pregnancy, they also talked about being far away and therefore not participating in them. Some participants talked about the absence of social support as the reason for non-participation suggesting that if they had social support probably in the form of their family being present, they could have considered it. Other participants said they did not participate because the midwives had told them that it was wrong.

"*Obviously, I am a Nigerian,* ***I can't erase that****. There is always a myth of don't eat this or don't eat that like don't eat snail, don't eat liver but those are the things that they are advising us to eat here so all those myths I didn't follow. Because I don't have anyone to help me, I have to do things my own way*". P4

"I know about them. It doesn't work for me. I don't listen. When I am craving for something, I eat it. God will protect me and the baby. Like snail, there's no time that I am pregnant that I do not eat snail because I am always craving for it. My mum is here, and she is always shouting (speaks in dialect), your children will be spitting excessively but I don't listen, and those things do not affect my babies. They do not spit excessively. Sometimes they tell you that you can't let someone cross over you as a pregnant woman. I followed that particular rule, especially if it's someone that I do not like crossing over me…

*If she is not around, I do not follow the tradition. I listen because I have to listen to them, I do them for the sake of doing but I do not really believe in them. I do not think I will follow the tradition because my children will not even listen to it but because I was raised in Nigeria, I still follow the tradition".*P6

However, using a memo, I reflected on the influence of traditions and cultural myths/taboos. Comparison was made between the participants educational status and the influence of cultural beliefs.

The question was posed to get additional influences on food habits that were not necessarily culturally inclined as the discussion had centred on culture almost from the start of the interview. The answer however went back to the core aspects of culture, which are beliefs and traditions. This made me reflect on the influence of cultural beliefs and traditions on an individual.

Participant 1 is a master's degree holder, she just recently obtained her master's degree in the United Kingdom, therefore she could be said to be internationally trained. She is well-read, well-spoken, and quite knowledgeable. She however has reflected on the influences of beliefs and myths using the quotes below.

*"And personally, out of **fear**, not because I don't know that they are wrong. Sometimes I say, I think what you are saying is wrong but I'm just like **let me be on the safe side** and then I don't eat those foods for example my sister-in-law has told me not to eat plantain, she says when you eat plantain, something comes on the baby's head or something. She just came up with something. I was like where did you hear this from. She insisted it was true. She also mentioned, like in particular cultures in Africa or even in some families, there are some foods that are forbidden in pregnancy in the family. I used to eat it sometimes, **but they keep saying it and you would wonder if they are right**, what if they are right **and I would regret it**. So, there are some foods I stopped eating based on African myth, not because they are fact. Not because they are true, just because it is the belief"*

As much as this strengthens the influence of food taboos on food habits. It also explores the reason underlying the adherence.

1. Fear- *out of fear* and *I would regret it*
2. Erring on the side of caution-*let me be on the safe side*
3. Constant state of worry- *but they keep saying it and you wonder if they are right*

Memo 4.4 Fear as an underlying factor

Memo 4.4 highlights that fear was a thread that ran through the conversation. Fear determined if the women followed cultural myths and taboos.

Food taboos exist in pregnancy especially in rural areas in Sub Saharan Africa (Iradukunda 2019; de Diego-Cordero et al 2021). There is literature from the African continent; from South Africa, Ghana (Yakubu 2019)), Malawi (Maliwichi-Nyirenda et al 2016), Tanzania (Lennox et al 2017), Ethiopia (Mohammed et al 2019; Zerfu et al 2016 (Tsegaye et al. 2021), Zambia (M'Soka et al 2015), Kenya (Riang'a et al 2017; Schnefke et al 2019), Nigeria (Ekwochi et al. 2016; Ugwa 2016) which has shown that food taboos; which are regarded as

norms and myths, influence food choices in pregnancy. Studies with small sample sizes, one in Southwestern Nigeria (Ekwochi et al 2016) found that 37% of the 114 women that participated in the cross-sectional survey believed and practiced food taboos in pregnancy irrespective of educational attainment. While another study Oni et al (2012) found that there was a higher likelihood for pregnant women to adhere to food taboos in pregnancy in that rural area. Unlike the previous study, there was an association found between low levels of formal education and adherence to food taboos. On the other hand, Ngongalah et al. (2021) has mentioned the non-influence of myths and taboos on Black immigrant women living in the UK.

These literatures strengthen the theory developing regarding culture as the underlying theme in food choices in pregnancy and the aspects of culture that are important. The abundant literature and stories from the participants have drawn attention to the influence of cultural beliefs on dietary pattern post migration, irrespective of educational attainment and length of migration.

Some of the participants who were multigravida mentioned following the beliefs for their first pregnancies but did not follow in subsequent pregnancies. The women indicated that as long as there were no obvious consequences for the previous babies then they were not under any obligation to follow the tradition.

Another aspect of cultural beliefs that seemed to have an influence on the participants dietary habits was captured in a focused code as "*perception of weight gain*" and highlighted in this sub-category. This code was seen as important as it underlies participants beliefs regarding weight gain.

"*Back where I come from being a big person, a big girl, plus size Is like, Oh, you're enjoying life, but I've come to realize when I come to England that is not necessarily mean is a good thing It can really, really be bad thing and I've worked as healthcare assistant, and I've seen the other side of being a big person*". P4

Initial code such as "cultural interpretation of overweight" was used to capture the participants differing views on being overweight. Summarily, pregnant women's preference for their cultural food, their perception about weight gain, the influence of cultural beliefs and myths influenced their food decisions. These factors were seen as important factors in their healthy eating choices, and they believe that it affected their receipt and uptake of healthy eating advice that was offered. It seemed like a new culture was being forced on them and most of the women reacted by declining the new culture. The ones that took on the new culture only took on aspects of this new culture and were quick to return to their own culture.

4.4.1.2 Sub-category: The concept of identity

"*I don't know about other culture, but I'm from Nigeria and I can say about my experience about being a Nigerian. it's going to be very difficult to tell a Nigerian don't eat meat. It's going to be very difficult to tell a Nigerian don't eat rice*." P4

"For instance, I don't like eating kiwi but now I take it. Stuff like cranberry, blueberries, I don't really like them, but I take them now. I was used to just watermelon prior to the pregnancy but now I take the other melon as well. The yellow melon and some other fruits that I don't remember their names, because I'm from Africa I don't remember their names but I take them now". P6

Pregnant women seemed to have the need to clarify their ethnicity. "I am from Nigeria" and "I am from Africa" were phrases that were used. It seemed to signify that being from Nigeria or from Africa was enough to make them different. It also seemed to signify that Nigerians and Africans had a different way to approach weight loss that was different from others. This sub-category was captured differently.

The concept of identity is an important aspect of the data analysis. This is because it focuses on the way these pregnant women see themselves. They see themselves first as Nigerians, even though they have lived in the UK for upwards of a year, their identity provided a reason for the non-acceptance of the new way of eating that was offered. Healthy eating decisions that would recognise that identity and take it into consideration would be important.

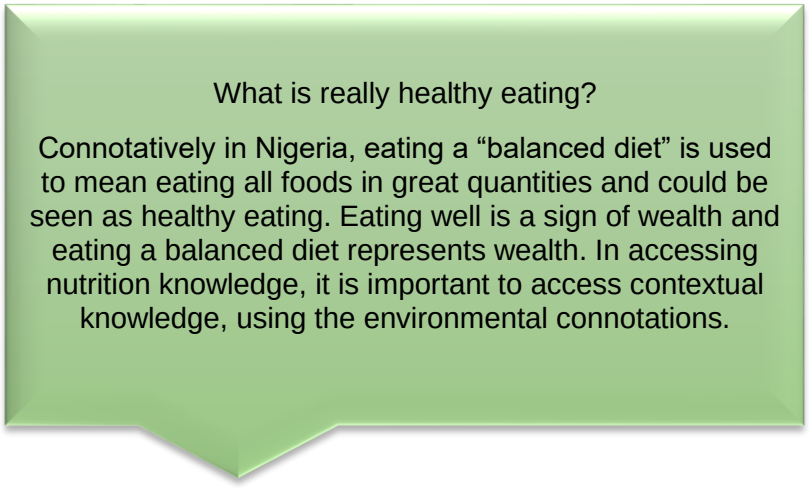
4.4.1.3 Sub-category: Making sense of healthy eating

Apart from culture, participants also defined healthy eating in different ways. From their understanding, healthy eating was defined as "knowing what you consume", eating moderately", "eating what is balanced", "eating healthy food", "eating protein", "self-control".

"*Healthy eating is actually knowing what you actually consume, what goes in me for example preparing my own thing in my own way. Just knowing what I consume in me. The right food that I actually eat*". P2

"Healthy eating? For me, it's just so simple… don't stuff your face. You know for me, everybody likes food, I love food and I just want to have all of it, but you have to have self-control. You need to say to yourself; do you really need it. At the end of the day, it's not oxygen. you need it to a certain extent but it's not like you can eat anything in sight. Little or nothing if you need to. Small portions if you need to. Just don't stuff your face. It's not necessary". P3

Women also defined healthy eating in terms of the risks and consequences associated with unhealthy eating such as obesity. These discussions have been considered as influential because it adds further context to the pregnant women's knowledge about healthy eating. Whether these meanings were considered right or wrong would be further discussed in chapter 7. In addition, most of the pregnant women understood healthy eating to be about eating a balanced diet, which has been used in the local parlance in Nigeria to mean consuming a lot of food.



Memo 4.5 Reflective memo

4.4.2 Theoretical category: Blending in

Blending in reflects the participants' attempts to become a part of the society in which they have found themselves. To blend means to mix or combine with something else (Cambridge Dictionary 2019). Some of the participants were trying to mix with the environment or with components of the environment. However, not all participants agreed with the process of blending in. For the participants who agreed to blend in, the acculturation was as a result of their children. It was however not a full blending in process.

"*It could be any culture literally, because of my little girl so we have to keep it mixed sometimes, because you know like she goes to school and obviously they will not offer her anything cultural because all they have is like pizza, fish cakes, burgers and what not and I've seen kids in the past that like when they started going to school they went off cultural meals, when they started thinking you know that's noy yummy enough food but for us every other day, we have to put something cultural in the meal just so she knows don't come in*

asking for lasagne every other day or don't come asking for sandwich every other day, this is still what you are gonna be having so yeah". P3

However, the women were not particular about the culture that they were imbibing. Women who were trying to blend in took up the characteristics of the prevalent environment and not necessarily the host culture. Therefore, if the prevalent environment was made up of different cultures, the participants were not necessarily adopting the culture of the host culture but that of the prevailing environment in which they lived.

The process of blending in/acculturation has been used in different literature to refer to the process that immigrants take on the culture of their now host country. It has been named as one of the factors that affect the health of immigrants. Greater acculturation has been associated with unfavourable health behaviours for most population groups (Abraído-Lanza et al. 2005; Babatunde-Sowole et al. 2018). The suggestion here is that the process of acculturation is not host culture specific as the host environment could be composed of different cultures. It is also important to highlight that the process of blending in/not blending in has affected their uptake of healthy eating messages.

4.4.3 Theoretical category: Negotiating for help

During the process of trying to meet their healthy eating needs, it seemed that the pregnant women were constantly trying to figure out how to create the change that they desired. The process of creating change was not easy and they have been captured in this category. Negotiating in this context meant to deal with something difficult (Cambridge dictionary 2019). The process of getting help was difficult for the women and they had to negotiate for the help. First the women talked about how they took control of their health, what processes they followed to achieve that ("taking control of my health"), then they went further to elucidate on what kinds of help that they required ("seeking help"). The women then went further to talk about the aspects of the host countries healthy eating advice that was either suitable or unsuitable for them. This category, sub-categories and focused codes that make up the category have been captured in figure 4.2

4.4.3.1 Sub-category 1: Taking control of my health

This sub-category deals with the reasons provided by the pregnant women for creating the change that they desired. Some of the women said that the change in eating habit was voluntary and that they made personal efforts to create the change that they needed.

"It was voluntary. A decision made by myself, not because maybe the pregnancy prompted a change in my taste bud or something. It was just a decision I made to make myself and my baby healthy". P1

Other reasons included the health of the baby and the mother. One of the participants had a history of high blood pressure, therefore she had decided to change her eating habit for that. Another participant had a history of terrible acid reflux in her previous pregnancies, therefore, the change in eating habit was because of the acid reflux.

*"Because I know for brain development, I need a lot of … for my baby's brain development, I need a lot of omega 3 and 6".*P7

"*For my heart as well, I don't have blood pressure issues, but I have palpitations and I know that the HDL, the healthy fats, I can get it from avocado and salmon. My pulse is usually 120 in this pregnancy BPM, although it will come down after the pregnancy*". P7

There were other reasons such as a family history of diabetes and hypertension. There were also participants who just wanted to control their weight.

"*I've actually been on this ermm dietary control since when I was in Nigeria, you know some people will take malt, some people will drink coke. I don't. till this very moment I don't drink malt and I don't drink coke cos I've got this tendency of going on the fat side. I'm not a slim person, if you can see me. yeah. So, I've actually, before I got into the country, I was a size 12/10"*

In addition, participants talked about the *lack of attention* from midwives and *the lack of guidance/ healthy eating* advice as reasons for taking control of their health.

"*You are just saying if she wants yeah or if she doesn't want. That's how I see it, if she goes by it fine if she doesn't go by it fine you know it's okay, it won't really affect her. And I've had my appointments, they've not said anything. I mean iron levels were low and they have done diabetes tests and all of that and I suppose if one of the diabetes tests had come back outside of tolerance maybe they would have said let's look into your diet, maybe they would have taken it a bit further, paid more attention to it, get someone to speak to me. so, I just feel like at the beginning when you get given that paper, no one really talks much about it in particular, maybe it's because they think it's not absolutely essential, just use common sense*". P3

A memo was used to capture my thoughts

What is happening?

It is obvious that participant 3 recognises the importance of iron deficiency in pregnancy. She also recognises that she would require help, but the help is not forthcoming. She has reflected on advice that she has heard (no particular source) regarding the use of spinach to help her iron levels.

She also recognises the importance that has been placed on a diagnosis of diabetes ("that and I suppose if one of the diabetes tests had come back outside of tolerance maybe they would have said let's look into your diet, maybe they would have taken it a bit further, paid more attention to it").

What does this mean?

It is obvious that she has recognised that there is a problem and that she needs help for the problem. She indicates that the midwife has offered some form of help by speaking with the doctor to offer her some tablets. However, that does not seem to be the kind of help she was looking for.

What does this mean for the research?

That women are aware of the problems and are aware of the kind of help they would want. It is important to explore what kind of help, these pregnant women would have preferred. It is also important to explore the un acknowledgement of the needs of pregnant African immigrant women with the midwives that provide their care. I will therefore explore, this with midwives.

Linking with research

Iron deficiency Anaemia is common in pregnancy around the world and in countries in Sub-Saharan Africa (Lindsay et al. 2012) especially Nigeria. It has been linked in sub-Saharan Africa with infections, under-nutrition, and the presence of malaria. Research is sparse regarding the presence of iron deficiency anaemia in Black African women post migration.

Memo 4.6 Health needs and the lack of acknowledgement of those needs.

Some participants reflected on their not being offered healthy eating advice in pregnancy. Upon further exploring the idea with the participant, she talked about not being offered healthy eating advice that reflected the foods she was used to.

"They talked to me about the normal food they eat here in the UK, but I'm not used to it, I prefer to get my own African food". P5

4.4.3.2 Sub-category: Seeking help

The process of help seeking will be presented from differing points of view using the narrations by the participants. All the women except one talked about help seeking being left for the individual to do (*cultural application of advice left to individual*). They, therefore sought for help from different sources, the internet, social media (*the internet is a source of advice*), apps (*apps are good sources of advice*), friends and family (*advice from friends and family*).

Although healthy eating advice was offered, some participants indicated that the advice that was offered was the bare minimum or standard stuff, and therefore found it uninteresting.

"Like what they have stated in there is like bare minimum. I don't see it as extra if that makes sense. I mean they will say things like, make sure you are having spinach and what not but how much spinach do you have to have to get a certain level of nutrients out of it" … So, I was given like bare minimum information there. I wouldn't say I have looked into it deeply; I will be honest". P3

They also talked about feeling that they were already doing what they had to do to take care of their health and therefore the healthy eating guide was not particularly enticing.

"I don't think I read them, cos you know like they will draw all those veg, draw veg and make it nice and colourful, but I didn't find it particularly enticing because I don't know. Maybe because I'm thinking in my head like I'm doing what I should be doing" P3

On the other hand, one participant indicated that she did not particularly need help and even if the help were to be offered, she did not think that the midwives were capable to offer that help. This meant that the cultural expertise that was required to modify her foods was lacking.

"*We live in London, I believe. Are they looking for how the midwife will tell them how to make dietary changes with our Nigerian food? (laughs). That means they will have to employ someone who knows about our food".* P7

This participant talked about being over a 100kg in pregnancy and the midwife offering some advice about the changes she had to make.

*"Replace processed sugar, take vegetables and fruits. If half of my plate used to be rice before, now it's a quarter. I have replaced my breakfast with smoothies".*P7

She indicated that she made the changes for a few weeks, but she invariably went back to eating her local foods.

*"I have tried to eat only what Is available but **it's not working**. I still need to eat those African foods. Even when I am eating my veggies, that meat sometimes is kpomo and shaki"* P7

***we live in London**, I believe. Are they looking for how the midwife will tell them how to make dietary changes with our Nigerian food? (laughs) That means they will have to employ someone who knows about our food. Well, I don't think I needed anybody to tell me about my Nigerian food and how to modify it. I think it was something I could have done by myself.*

Participant 7's body language indicated that she did not think that getting someone who knew about African food was possible. There was a smirk and then an outright laughter.

She has indicated also that it was something that she could have done by herself but it's obvious that she hasn't had much success in doing that. Even with the lack of apparent success, there is also an apparent disbelieve that there could be a cultural integration in her now host country. Her statement "*we live in London*" indicates that the expectation is that we conform to the host countries culture or that we do not expect the midwifes to help in making dietary changes to her cultural food.

Participant 7 is the last participant, and she was reacting to other participants views about modifying the healthy eating advice to reflect African foods.

Memo 4.7 Reflective memo

On the other hand, other participants talked extensively about making substitutions to their diet on their own using whatever resources they could find.

*"When I went to the midwife, I was told eat a little bit more beans which to be fair and completely honest with you, I've not eaten baked beans since I came to this country, so they advise you to eat baked beans. **It's not my own cup of tea**. They advise you to eat some corn and some okra. I try to substitute what I can. They give you basically a leaflet that show you the kind of food is supposed to be eating" …*

"So, I've tried to substitute the foods I can't eat with what I know how to eat. For example, instead of baked beans I cook my own Nigerian beans it's still beans and eat it. You understand what I mean". P4

Participant 1 deeply explored measures that she took to meet her healthy eating needs and that of her baby. She talked extensively on using the internet (google) to search for African foods that she could substitute.

"Things like broccoli, cauliflower. And you know I hate such foods, so I now had to google African foods that are high in iron because I really hate broccoli. Infact all the foods she listed I'm like why, don't you have any... and then cereal, I'm not a cereal person, I can't remember the last time I had cereal, so it was just a no no for me".

So, I think it was more of me listening to them and also making my own personal research on what is good for the babies' health and me.

I now had to start searching for African food…". P1

Some of the participants took advice from friends and family. They felt that the family and friends had been pregnant before and as such their advice was suitable.

"I think that when you have people around, they feel that they are not here with me, so you know they just keep sending me these food things on WhatsApp and say you should eat it. I remember my friends mum advised me to eat these hazelnut seeds. Oh, you should eat it. It is very good for baby's brain. She said when she was pregnant with my friend, she ate lots of it. That's she's intelligent. It was funny though but then I actually did it,

"And then my sister too, she won't stop telling me what to do, eat custard. You know they just give you different ideas from African perspective and I think it's helpful because they've got the experience. That was it for me". P1

In addition, women indicated how they would want their help. These thoughts were captured in different initial and focused codes. Focused codes such as "*tell me how to eat my own food", "diet modification requires expertise", "midwives with cultural expertise made it easier*".

Five women reflected on what they really would have preferred.

"I would have loved that leaflet to have something like my African foods tailored in the same way as the English one is done so that …you understand. It really matters, it matters to me. I would have really loved if its like eating what's it called, if I am eating my ewedu and amala, the portion that I can actually eat it with. You know things like that, and it would have been more fun as well". P2

"Let me just say, personally I feel that they should have made their approach more …how will I say it…more flexible. To be able to address all kinds of culture for example. Now if a midwife is dealing with a Chinese woman here, I feel they should have a knowledge of the

kind of food that is available… And not be like only English food, either you eat broccoli, fibre, cereal, whatever or nothing. I feel they should have made it flexible. That's just my own opinion though". P1

I don't know how to put it. It's a bit difficult when you are from different culture and from different background. For example, if you give me lasagne now you are backing at the wrong tree because I'm not going to eat it. What I know how to eat if you can give me advice on it. On how to eat it in a way that it's not going to affect me too much. It will be more useful than telling me to eat baked beans. I've never eaten baked beans. But if you can give me more ermm food. I know how to how to cook and do the best way to cook it that will not give me this extra fat or make me extra chunky. It will be easier for me than tell me, eat this eat that. I'm not gonna lie to you, growing non from Nigeria. I've never tasted salad until I came to this country. Because salad to them back home is like we are not a goat, why are you eating leaf that's the way we were raised, and it's going to take a lot to Take that mentality away. you understand to take what you know what you know best. It's going to take a lot to take it from me. But instead of taking is away, why can't we find advice on okay if you eat this certain portion of this it will help you out or if you eat certain portion of that or how to make my own poundo yam or how to make my own soup Because my soup is different from the soup you find in Tesco. So how to make all these things in benefit of my own health will be nice. P4

There was a deep desire to adopt healthier eating habits and portions, the women however wanted it to be about their own food (*tell me how to eat my own food*). One participant however indicated that diet modification would require expertise, *That, means they will have to employ someone who knows about our food.* That was something she didn't think was possible.

On the other hand, two participants reflected on her experiences with regards to midwives who had cultural expertise *midwives with cultural expertise made it easier"*. Participant 4 talked about the multicultural nature of her community in Deptford, who had midwives with African cultural expertise with regards to African foods. She reflected on how helpful the encounters were with such midwives.

"In the community I live now, I live in Deptford, its multicultural so you get some midwives that really give you advice on African food. They look at you and the way you look at the leaflet, they will just put the leaflet aside and they will talk to you from I guess from your background if they are from your background. Or let's say they put their profession away for one minute and talk to you as a human being which I really appreciated because it's more appreciative to me because they are talking to me from their heart". P4

Whilst participant 6 talked about the inclusion of her African diet in the healthy eating instruction handed out at her healthcare Trust

"The stuff they wrote for instance if I want to eat my eba, they wrote 1/3 of eba. I would wonder how I would measure my eba… There was also sandwich but with the brown bread and toast with tuna and a piece of fruit. The eba, garri, fufu should not be more than 130 grams. Eat it with meat, fish, and stew. So, I wondered if I wanted to make eba now, I should start weighing it" … They have added the African food, but they didn't add too much of our food. This is a guide used in the … hospital. P6

A memo was used to reflect my thoughts regarding the sub-category – "seeking help

a.) <u>What is happening-</u>

The sub-category reflects pregnant women's journey towards asking for and receiving help. There is really no narrative as regards the women asking the midwives for help for their healthy eating. What has been reflected indicates some sort of reticence around asking for help. Most of the pregnant women have an assumption that the help should be offered without them asking, while others think that the midwives are incapable of offering help. Participant 3 has captured that properly

"I think sometimes it's one thing giving out information like what I've done, they have given me this information, but I've literally just shoved them away because I work better with, if you think it will benefit me, don't just give me paper let's talk about it. If you really think it will be of benefit to me and I'm not saying it because I want to be spoon fed or something but don't just give me the paper and say, take. You are just saying if she wants yeah or if she doesn't want. That's how I see it, if she goes by it fine if she doesn't go by it fine you know it's okay, it won't really affect her"

<u>What does this mean?</u>

1. It would be interesting to pursue this theme with midwives regarding help seeking amongst African women

To do

Midwives' views and reflections on engagement reticence by African pregnant women will be explored in the interviews with midwives.

<u>Importance for research</u>

Some of the findings could provide answers regarding engagement/non-engagement.

b.) Seeking help *-midwives with cultural expertise made it easier, tell me how to eat my own food*

There has been a push in recent years towards culturally appropriate interventions. Interventions that include a component that reflects the culture of the individuals to which the intervention has been targeted. Healthy eating interventions targeted at certain cultures should include components of their culture including food.

Memo 4.8 Help seeking behaviour

Memo 4.8 highlights that there might be a chasm between the expectations of the women and the help to which they have been offered. However, in these narrations, the process of help seeking has been left for the pregnant women to figure out. This has in most cases affected their uptake of the healthy eating messages that have been offered. It seems apparent that if the healthy eating messages had been offered in a way that was familiar with them, that the uptake might have been higher.

4.4.3.3 Sub-category 3: Guidance is not specific enough

Guidance was offered to pregnant women in different forms including spoken and/or leaflet forms. Some of the women were also referred to pregnancy apps that were used in their

trusts. There were variations in how pregnant women viewed the healthy eating advice that was offered. One pregnant woman spoke positively about the healthy eating advice from her trust, she narrated how the advice that she was given contained foods from her culture, making her feel positive about the healthy eating advice. She also related about being offered vouchers for fruits and vegetables. She said that it impacted her ability to consume fruits and vegetables without which she could have been unable to purchase.

On the other hand, most of the pregnant participants were not that positive about the healthy eating advice/guide. Some women said they were not entitled to help in the form of vouchers so that impacted them. They also referred to the guidance as being bare minimum and not specific enough (please see quote in sub-category-seeking help above).

They talked about the guidance being centred mainly around the things that the pregnant women needed to avoid.

"She gave me a pamphlet and they talk to you about it. Like you can eat this, and you can eat that. You understand, but most of the food on the on the pamphlet is not what I usually eat, to be honest. The only thing that I think is helpful to me in the pamphlet is just sweet corn and okra. That's it". P4

Some of the participants also talked about the food range being offered for minority ethnic groups on the healthy eating guide as being small. On the other hand, only one participant talked about the healthy eating guide being simple and straight forward. The lack of specificity of the healthy eating guide seemed to affect the women's uptake of healthy eating information.

4.4.4 Category 4: Meeting my healthy eating needs

Specific questions about the barriers and facilitators to the uptake of healthy eating messages were asked during the narration. This category captured the answers that women gave. In the narration, previous categories seemed to capture the hidden barriers to the uptake of healthy eating messages, factors that women would not consider as barriers, but which however affected their engagement with the healthy eating advice that was offered. This category however gave answers to specific questions.

The answers have been reflected in 4 sub-categories as shown in figure 4.3 including the focused codes that make up the category.

4.4.4.1 Sub-category: Pregnancy is a determinant

Pregnant women spoke about the changes that came with the pregnancy period as being a significant determinant of healthy eating. Cravings, food aversions, lack of appetite, and

increasing appetites were all used to reflect reasons for healthy/unhealthy eating in pregnancy. Six participants viewed cravings as being a normal part of pregnancy, something they did not have any control over.

"*Because I don't have any control over it, because if I say I won't, next minute I will see one thing, after eating so much good, healthy stuff, I can actually put some veg Infront of me, next thing I will see myself eating it, but I try to reduce the portion of the way I consume something that is not so healthy*". P4

"For me, the challenge I have is cravings. I am craving anything that has sugar a lot. I know it's not good but then I was really craving it. So, I tried to take orange juice, sometimes I feel like taking coke, I was just craving. I said no. I don't want to take it because I know it's not good when you take too much of these things". P1

Therefore, cravings caused the women to struggle a lot with healthy eating in pregnancy. The women stated that they could make efforts to eat healthy but when the cravings took over, they had to succumb. Women talked about feeling guilty after succumbing to the cravings.

"I know I'm not definitely eating healthy, even after eating it I feel guilty, yeah I feel guilty".

Only one participant said that cravings was not a problem to her. Even though she had cravings, if she did not have access to the foods the cravings would wear off. Three pregnant women talked about food aversions and the effect on healthy eating. Foods like meat, fish were avoided in pregnancy.

"It's not that you don't eat them but because you are pregnant it's difficult to eat them. Take for instance fish, oh I like fish but right now, if I go close to fish, I'm gonna throw up so I won't even go near it. Even though it's part of the healthy eating, it's part of the protein they told us is good for pregnant women but even a can of sardine can make me throw up, so I won't even go near fish. So, I've tried to substitute the foods I can't eat with what I know how to eat". P4

In addition, one pregnant woman talked about not being able to eat very well in pregnancy.

"Before I became pregnant, you know in the UK it depends on the weather. I used to eat a lot before I became pregnant. Maybe like 3 times a day but now I'm not able to eat very well. So, if I know I'm hungry and I don't know what to eat. I will have to go for fruits. So, I prefer to eat fruits if I don't find anything to eat. And sometimes I don't feel hungry. Like this is to 1 and I have not eaten morning food, I've not put anything into my mouth today".

Lack/loss of appetites and increasing appetites were also pregnancy determined factors that affected healthy eating for the women. One participant talked about losing appetite after meal preparations as being a major factor.

"*Sometimes during pregnancy, you might feel like eating something and you can't make it because if you make it you might not be able to eat it. You know that type of feeling, so I will finish cooking and I won't be able to eat that food because of all the stress I have gone through, I would have lost that appetite*". P2

The lack/loss of appetite was also attributed to the stress of meal preparation, due to the fact that she prepared her meals from scratch. While another participant talked about her increasing appetite as being a barrier to healthy eating.

4.4.4.2 Sub-category 2: Women's needs are subsumed by family

The influence of family in determining the food pattern in the household was an important topic for two women. Women talked about a consideration of the needs of the family when they were making food decisions even in pregnancy. Their family (husband and children) were very important determinant in the types of foods that they bought and cooked. Some of the women talked about their husband and kids like participant 4.

"Its personal preference. First, what are we if when I get to the shop. The first thing I'll think about is what I will eat or my husband to eat and what the kids will eat. To be honest, how much it costs does not really come into it, I will try to change the brand if I'm running low on money but yes, it's not really about the money, it's about the preference. What will I eat, if I buy this would I eat it, will the kids eat it? Will my husband eat it? That's gonna be first thing on my mind, personal preference". P4

The women who talked solely about their kids being a consideration talked in the context of making their kids blend with the environment.

"We could be reluctant to try something new and it keeps going through the generation but with the fact that I am raising a son here. Sometimes when he gets back from school, he insists on eating something that he had seen in school for instance curry stew. Sometimes I have to learn how to make It for the sake of my son. I am now getting used to it, I can't deny my son if he wants to eat those things. Denying him will make him look like a total stranger to his peers. It is important to make him blend with the environment". P6

Previous literature review regarding the determinants of household food patterns in African Americans and Black African women living in the United States show a matriarchal pattern in the household. It also showed that women lived in multigenerational households in America.

This means that food decisions are taken by the oldest female in the house usually the grandmother or the pregnant woman's mother. This theme was explored as a topic of interest in this study, to try and understand whether black immigrant women in the United Kingdom lived in multigenerational households and how this affected the food pattern in the household.

Questions aiming to explore this were asked as follow-up questions. They were an offshoot of questions that the women were asked when they indicated that family affected their food decisions. The pregnant women in this study indicated that they did not live-in multigenerational households therefore they had the sole decision regarding their food choices. However, factors like husband's preferences, children's preferences and outside influence from friends and family especially from Africa/Nigeria affected their food choices.

"What will I eat, if I buy this would I eat it, will the kids eat it? Will my husband eat it? That's gonna be first thing on my mind, personal preference". P4

"I eat as a family. When I cook, I cook like in general, I don't want anything that will affect my children as well". P2

"*I think that when you have people around, they feel that they are not here with me, so you know they just keep sending me these food things on WhatsApp and say you should eat it".* P1

"Oh, yes. Oh, well, my first pregnancy, there's this drink called supermalt which I love so much, and I remember my sister-in-law was telling me you gonna have chunky babies if you don't put that away. So, I asked her why, and she was trying to tell me That even though is a is a very good drink but in pregnancy it might not be such a good thing. Because it will help you to put on weight and not just you but with the baby as well. So yeah, it was a really, really good advice for me". P4

4.4.4.3 Sub-category: Society determines healthy eating

Pregnant women talked about other factors that determined their food choices. They have been termed as society determined factors. The women felt that these factors were out of their locus of control and therefore they could not have an influence on it. Generally, factors such as food availability was seen as both a motivator and a barrier to healthy eating. However, one participant talked about food availability as a disadvantage to healthy eating. She mentioned the fact that the food was too available in the UK as compared with Nigeria causing people to eat too much, therefore causing weight gain.

"*Maybe if I was in Nigeria, maybe I wouldn't even be having this much food to stuff my face with anyway because here the trouble is the availability of the food. The food is there. For me growing up you have to even get the food sorted, that was enough exercise. It could be tedious but here the food is kind of readily available. You can practically do the damage all by yourself. You don't need help. Growing up for me, I didn't really get snack time, I didn't really get in between meals, like you know you will say let's get a toastie. I didn't have none of that…*". P3

On the other hand, pregnant women talked about the availability of food including healthy cultural foods as a motivator and as a barrier to healthy eating.

"I will start from what makes people to eat healthy. I think it is when it is readily available. If you can easily get something that is healthy".

One pregnant woman specifically talked about the lack of availability of healthy cultural foods.

"It's just that it's really hard to find, the ones that make it here is the ones we see is really, really hard to find it and yeah but if I just believe if we can be shown in a way that our food can healthy as other main meal, I think we will be fine". P4

While another talked about availability in terms of accessibility.

"*It seems unhealthy foods are cheaper, and they are more accessible. There is a corner shop around where I stay where you can just pop in if you don't want to take a bus and go to the market. Most of the foods you see there are not healthy, they are unhealthy processed foods around than healthy foods".*P7

In addition to food availability, finance was another important society determined factor in healthy eating. Women talked generally about the influence of cost/finances on food decisions. Cost was seen as a barrier to healthy eating.

"*I also consider cost/finance. Even though I would like to eat my home food, I still go for the cheaper options".* P7

"And again, if ermm if it's not that expensive you know. If something is good and it's too expensive you might just be like let me skip it. So, I think that the money factor is there". P1

Women looked at the availability of finance as a motivator for healthy eating. One Participant talked about finance in terms of the availability of free fruits and vegetable vouchers as a motivator for healthy eating.

"*I would have said finance, but we are getting fruits voucher for free from the community support. So, in that aspect it's not finance. Or maybe basically maybe without that I might not put the pressure of getting healthy because of the baby but with the vouchers it makes it easier to be healthy for the baby. I have to get the fruits and force myself to eat it*". P6

Exploring the topic further, the participant indicated that she would not have been so consistent with her healthy eating decisions if she was not receiving fruits and vegetable vouchers.

"I would have bothered but I would not be consistent and not in the same quantities. Now I'm going extra length to do it because I have got the support. But basically, if I am the one to do it for myself, I would have bought smaller quantities of fruits, be selective. But now when I go to the market, I make sure I buy. I might buy a variety of 8 fruits. With that it motivates me to get more". P6

This meant that her decision to eat healthy was hinged on how much financial support in the forms of vouchers that she was receiving. Other society determined factors that came from the discussions were distance and a lack of social support. Some participants talked about distance and its effect on healthy eating. The distance was in terms of proximity to healthy food. In contrast, some participants had earlier talked about distance in terms of their being able to travel any distance to get their cultural food. Therefore, it seemed that distance for the participants rested on whatever their interest was.

The lack of social support was spoken of in terms of the COVID 19 restrictions and its effect on the social support that was available prior to the pandemic.

"*You know when I first came to the UK, back then in Nigeria I've never been bored. There were always people but here just you alone and thank God I brought pregnancy to the country otherwise it would have been really tough. My little one keeps me company. Before Covid there used to be support from salvation army, they used to help a lot. We used to go there every Friday to have fun and they helped a lot. But now with covid, the meetings are on zoom and the if you need support you would have to book appointments on zoom. I also go to food bank and I'm also under universal credit as well*". P5

"*But since covid has started everything stopped. We tried to zoom call use zoom to call each other, but it's not the same as going to be around other people. It's just been on the phone just talking to everybody and eventually that as well. got taken off because everybody is bored nobody really wants to come on zoom anymore or somebody is doing something, or the other person is busy That has been taken away so it's just school and back home… I'm on maternity leave. So is basically I'm home all day. so, I'm sleeping all day, so if I'm not*

talking to you right now, I will be sleeping so my kids don't finish till about 3 in the afternoon or so to be honest this has a lot of effects on mental health as well". P4

Taste and accessibility of unhealthy foods were another society determined factor that was mentioned. One participants raised these as challenges/ barriers to healthy eating including other issues like finances that have been mentioned by other participants.

"*Healthy foods are more expensive than unhealthy food. It seems unhealthy foods are cheaper, and they are more accessible. There is a corner shop around where I stay where you can just pop in if you don't want to take a bus and go to the market…Unhealthy foods taste better. Imagine someone going to work and coming back, its whatever they see around them that they eat, meanwhile healthy foods take a lot of prepping".* P7

Another influence on healthy eating from the narratives is the cultural perception around weight. This understanding was society driven mainly from the Nigerian context. Two women talked about the differences in perception of weight gain and how that affected their healthy eating decisions.

Participant 4 talked about her understanding of being overweight or "big girl" in her cultural context meant that you were rich ("enjoying life"). Her journey to England and blending into the society challenged that cultural mindset. She talked about working in Care and seeing the consequences of unhealthy eating.

"Back where I come from being a big person, a big girl, plus size Is like, Oh, you're enjoying life, but I've come to realize when I come to England that is not necessarily mean is a good thing It can really, really be bad thing and I've worked as healthcare assistant, and I've seen the other side of being a big person". P4

However, she said she didn't want to be a tiny person(slim) person, she just wanted to reduce her portion size and then keep fit.

*So, I try to minimize have some stuff that normally I won't even think about exercise but I try to join the gym, I try to exercise and I try to reduce the portion of food, even though it's the same food but I try to eat it in a smaller portion than I used to, to just keep fit It doesn't necessarily mean you have to be size 6 but to just make sure you don't die from a heart attack when you are sleeping because obesity can cause that so try to minimize everything and change my lifestyle in the best way I can just to suit me".*P4

Her conversations showed that there was a clash in her perceptions around being overweight. Although she had evidently seen the consequences of being overweight due to

her work exposure around being a carer. She did not have any intentions of being a slim person as evidenced from her quotes.

While another participant talked about overweight as being genetic. In her opinion, obesity had no health effect, and that if being overweight was in the genes, then the person would most likely be overweight.

"No, I don't think it has any effect. It depends on your background, because even if you aren't eating, if you are meant to gain weight, you will still gain weight. It depends on your background". P5

Cultural perception of weight gain and overweight in African Americans have been researched in literature (Padgett et al 2003; Whitaker et al 2015) . However, this area is sparsely researched amongst Black African Immigrants. Amongst Black Americans, there has been a level of body dissatisfaction recorded in Literature as compared with Caucasian women. However, the body dissatisfaction has been recorded at higher BMI levels usually when they have reached overweight status (Padgett et al 2003). A study exploring the perception of African American girls to weight gain showed that African American girls considered themselves to be socially acceptable and beautiful at a higher BMI than their Caucasian counterparts.

4.4.4.4 Sub-category 4: Motivations for healthy eating

There were factors that motivated the women to eat healthily. Such factors include family history of a sickness, or a current diagnosis. These factors caused the women to change their eating habits in pregnancy. Two pregnant women talked about a family history of diabetes and hypertension causing them to watch their food habits.

"*I've got my parents as well. My dad is diabetic, and my mum is hypertensive. So, my dad keeps warning us to be careful of our sugar intake. He was actually the one that told me that you can get diabetes not only from sugar alone. Actually, there are some things you eat that has got sugar, so you need to be careful the way you eat it, and my mum is hypertensive…".*P2

"Apart from that, my mum passed on at the age of 40 due to hypertension and diabetes complications, so I am actually trying to make some changes here and there. So, family history of diabetes and hypertension as well is actually making me make some dietary changes as well". P7

Two pregnant women talked about the health of the baby as being a major consideration in their healthy eating journey. They talked about changing their eating habit for the sake of the health of the baby.

"It was just a decision I made to make myself and my baby healthy. So, I've just been thinking anytime I get pregnant I'm going to eat lots of cucumbers, carrots you know stuff like that. It was just a decision I made. It wasn't because, Infact I had, it was as if I didn't really experience any drastic change you know in my appetite for food. It was the same, but it was just a deliberate effort from my own side to say okay eat more of veggies, more of fruits you know to make your baby and you healthy. That was it for me".P1

Another motivation for healthy eating was the feeling of guilt that was mentioned by participant 4.

Taste and accessibility had been mentioned earlier as a society determined factor. Taste was mentioned when it related to the unavailability of healthy tasty foods. Taste in this sub-category was referred to by the women as a motivation for choosing meals and not necessarily as a motivation for healthy eating.

"*For me, it is just taste. I mean how good the food is. I am the type that I can go to London from this Bournemouth to go and get something that is good, and I won't mind the amount even if I don't have money. For me, it's never about maybe the distance or the money to spend or where. It's about the taste, that very nice taste where I can get it. That's mine*" P1

"Obviously, the taste and personal preference matters. You know the kind of food I know I have tasted before, and that I know that this is what I really like. …I eat as a family. When I cook, I cook like in general, I don't want anything that will affect my children as well". P2

4.5 Summary

This chapter presents account of the construction of four categories that emerged from the interview with BAIP women. The categories presented the process of pregnancy and how BAIP women engaged with healthy eating advice received. *Navigating a shifting cultural landscape* explained the shift in culture as the women accessed the maternity service. However, despite the shift in culture, BAIP women came through by reflecting on their distinct identity and how that influences their definition of healthy eating and their preferences. *Blending in* reflects how BAIP women come to interact with the host environment and the influences. *Negotiating for help* reflects on how BAIP women found help for their healthy eating needs and their preferences. While *meeting healthy eating needs* captured the potential obvious barriers and facilitators and how these influenced the uptake of healthy eating messages by BAIP women.

All through the narrations as I captured the participants voices using the interview guide to steer the conversations, I began to reflect on the answers that were given. It became obvious to me as a researcher that although it did not pertain to questions that reflected barriers, narrations by participants reflected hidden barriers and facilitators to healthy eating and not just interactions with healthy eating advice. Therefore, the first 3 categories were used to capture the hidden barriers as much as it gave an account of BAIP women's interactions with healthy eating advice.

The findings from chapter 4 highlights that BAIP women attached meaning to culture and identity in engaging with healthy eating advice. Every other factor that was considered significant in engaging with healthy eating in pregnancy was navigated under culture and identity.

The next chapter (chapter 5) presents the findings from the analysis of the midwives' data.

Chapter 5 Findings- midwives

5.1 Introduction

Nineteen midwives participated in interviews and focus group discussions. Analysis of the data yielded ten themes which were coded into three broad categories: 1.) There are cultural needs 2.) Hard to engage 3.) Managing the system. All the categories fed into each other and is represented by the centre stage diagram in figure 5.1 below.

Midwife participants recognised that African immigrant pregnant women had healthy eating needs which were not met. The needs were related to cultural needs. In that reflection, midwives also explored the lack of or minimal understanding of cultural dynamics. They also recognised gaps within the midwifery practice as individuals and as a practice. Gaps regarding cultural unsuitability of the healthy eating advice, cultural needs, and knowledge. They further recognised that there were gaps within the general hospital system. In order to address these needs, although midwives explored culture and the system, the general theme that was emanating from the discussions related to engagement. Methods to improve engagement, problems regarding communication barriers, methods which had been used to improve communication and their need to improve knowledge.

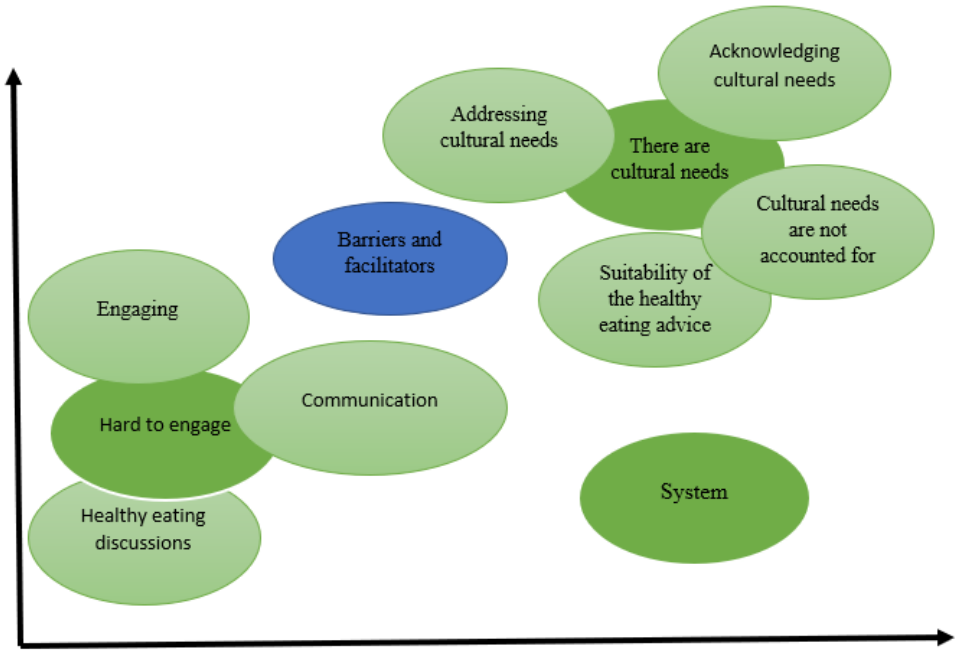


Figure 5.1 Centre stage diagram showing midwives categories.

5.2 Theoretical category: There are cultural needs

There are cultural needs is the first principal category that emerged from the analysis of the interviews with midwives. This category gave insight to how midwives upon reflection recognised and acknowledged that BAIP women had different cultural needs. These came off discussions around the suitability of the healthy eating guide in pregnancy. The category is divided into sub-categories for ease of understanding. Five sub-categories emerged.

5.2.1 Sub-category: Acknowledging cultural needs

I mean, not your topic, but it doesn't cater for vegans, for example, at all. So, it doesn't cater for all cultures at all. I did have a lot of Oriental patients that were obese, and it didn't. For example, cater for their culture" …

"It felt more we had Caucasian women more and the Diet advice reflected properly that diet. More than it would have for specific groups like vegans, Africans, Orientals". M1

Some midwives acknowledged that the healthy eating guide did not cater to the differing needs in the population including cultural needs. This view was however not represented by all the midwives. Some midwives narrated how they did not realise that the cultural needs of Black African immigrant women were different

"I don't sort of differentiate between Africans and the white British ladies you know about their diet as such. You know I get a lot of sickle cell, thalassaemia, HIV ladies you know and they tend to be sort of honest anyway with their medical conditions so we generally go in the logical sort of way that we chat about it". M2

"I don't really recall actually being very focused on what they should be eating it was more about what they shouldn't be eating to avoid getting infections or their children having allergies. I think probably the diet would then the, the one time that I can sort of remember telling people about what they should be eating is if you have somebody who was an anaemic, for example. Then probably based on the blood results. I would maybe advise them to eat a little bit more leafy green vegetables and if they were If they were not vegetarian to try and eat a little bit of red meat as well as taking the iron But, yeah, that would be". M6

Despite the recognition of the differences in cultural needs by some midwives, they however expected that the women should take up the generic advice that had been offered. Midwives gave reasons for the low uptake of healthy eating advice by the women to be the generic nature of the healthy eating guide.

“I think that if you explain to them, if it’s something to do with their pregnancy and their health, if you explain to them the risks and the benefits, then I think that they are but if it’s just generic, I don’t think that they are particularly interested, and I think that there is an element of they are gonna do what they are gonna do anyway M7

5.2.2 Sub-category: Cultural needs are not accounted for

While some midwives acknowledged that there were cultural needs, they also felt that the needs were not accounted for. Midwives narrated that the generic nature of the healthy eating guide and advice made it difficult for the needs of the women to be met. They felt that if the advice was not generic, the women would have been more interested. More than half of the participant midwives said that the healthy eating guide was more about what the women should avoid in pregnancy rather than about what they should eat. They also said that the guide and advice was more reflective of the British culture.

“*It would be pretty much the same sort of general advice I think I used to think as a student like when you're sitting in front of someone who South Asian or even African and you are saying Don't eat soft cheese, you will think well actually probably don't eat soft cheese anyway. It's not in their diet. So why are we telling these women not to eat soft cheese. What we should be saying is what things do you eat. And let's see, how about is good or bad for your pregnancy. So yeah, it was very much generalize and even the South Asian community”.* M6

Taking it further, some of the midwives acknowledged that they knew that there was a cultural difference, however they were frustrated about the lack of information about African women’s foods.

“*Ermm it's frustrating and I feel like there wasn't much out there on the internet. We did with one patient. I remember we did Google to find out, but I see we found one website for African, but it was specific for Africa diabetic women. Yeah, this this lady was obese. She wasn't diabetic. And she didn't know how to calculate carbohydrates and things like this that is not what we wanted*”. M1

Even midwives’ who were on specialist roles such as BMI midwifes, or diabetic specialist midwives found that they struggled to get information for their clients. For instance, the quote above was from participant 1(midwife) reflecting her frustrations with the non-availability of information for African women. She mentioned this as she reflected about her specialist role a few years ago, for women with a BMI over 35. Some of the women, whom she advised were pregnant Africans. She explained that all of the women got the same healthy eating

handouts and general advice ("*Yeah. So, it's the same handouts that they got. And the general advice was, yeah"*). On few occasions she did try to tweak the diet.

"*Similar to sort of what I've said we would they would tell me what they would usually have for breakfast, lunch, dinner and then we would go through things that we could tweak. Say the thing that I remember is that they ate a lot of fish, which is, you know, favourable protein we discussed yams, I think they are called and plantains. And in general, sort of portion size. If they're hungry. What kind of vegetable they could pick or fruits that is low in GI, low in sugar ermm yeah*".

But she generally felt that the advice was more suited to her Caucasian women.

"Because like I said when I did that specialist role ermm We, we did have stumbling blocks. Yeah, to advise women it's unfortunately I can't remember the numbers of women that came through the clinics that were of an African background. feel that didn't feel like it was a lot of women, it felt more we had Caucasian women more and the Diet advice reflected properly that diet. More than it would have for specific groups like vegans, Africans, Orientals".

On the other hand, a midwife talked about the lack of familiarity to the kinds of foods that African women ate, she noted that it would make a difficult conversation if an African pregnant woman were to ask her for specific help.

"I think sometimes there's, you know, if you yourself aren't that familiar with African food and African culture, then it's sometimes it can be a little bit difficult I think because you don't actually know what Food people might be eating at home. I don't actually know What is healthy in that, you know, what is it and what gets fried, I don't know the names of any of the food. So that might be difficult if a woman came to me and said, oh, I eat a lot of Whatever it is, I wouldn't know what it was to tell her, whether it was healthy or not, if that makes sense" M15

Midwives also recognised that there was a lack of knowledge generally in the healthcare system around food diversity, suggesting on ways to improve deal with the lack of knowledge.

"*I think for midwives as well to get sort of some training sessions to give them more sort of knowledge in relation to what we should be advising these women because although at the moment, we do have you have small clusters of these women. in time, we are going to get more. And actually, even though it is small classes. I think for them women, it's important that we should be giving them advice because they are at risk of having small babies. You know, diabetes, and I think yes, there's only a small group but they are important. So we should be getting the knowledge to be able to advise them. Correctly so maybe sort of more*

training for midwives in the area as well and making you know the women feel, I don't know, more welcome and sort of, you know, I don't know, sort of encouraging them. Having more leaflets that are available to them and accessible to them and making the process slightly more easier, maybe for them to access healthcare". M8

Still elaborating about the frustrations that midwifes experienced with regards to being able to offer help, apart from the lack of healthy eating resources, there was also a lack of referral places and not much room for change within the NHS. It seemed like the topic about these frustrations were not new topics, but that change had not yet come.

"*It's quite hard in the NHS, I think sometimes things sort of There's not really much room for movement and time constraints and too to refer these women to and get that sort of advice for them. And I think particularly at, the moment where we're quite sort of under resourced and here we do have to speak to and gain that sort of You know, we can't. There's not really many places we can refer these women to now unless we sort of use charities or things like…".* M8

Some midwives referred the women to the internet to look for information due to the lack of appropriate materials to access.

"*But I have given Verbal advice I've even off the kind of guided them to look on to the internet about what's available to African women and because I know that African diets are different to what like a conventional white British diet would be, and I know some African women. They can have problems with accessing normal what their normal diet is to what our normal diet is and I know some women have struggled So I have kind of said to them, If you* go off *and look on look on the internet you can find other sources of information that may be of benefit to yourselves, rather than just what the midwives in this area would have said would be a bit of benefit to you*". M11

Midwives went further to elaborate on the unsuitability of the healthy eating guide. Most of the midwives said they found that the healthy eating guide was not just unsuitable for Africans, but it was unsuitable for individuals that were practising other ways of eating including vegans.

"I would say no. I think it probably is quite stringent and quite sort of westernized. And yeah, I don't think sort of caters for everybody. Now I think is quite sort of straight and to the point. And I said, more westernized and anything else". M8

"I think it's probably more geared towards sort of I think it's probably more geared towards sort of like a traditional British diet but um obviously i think it's just in English, I'm not sure there's any other language that it's offered in". M10

In the midst of the discussions, midwives began to really talk about the cultural differences that they observed. Midwives felt that these were not needs that went unmet but rather these were cultural understandings. I labelled these ideas cultural framings. This narrative was captured in another sub-category

5.2.3: Sub-category: it's a different cultural dynamic

Midwives acknowledged that there was a difference in the cultural dynamics that existed within the African culture. Some midwives expressed their thoughts about Black African women's engagement with antenatal care. Some assumptions were put forward, for instance, some midwives said they felt that Black African women did not value antenatal care and were laid back.

"I don't know if they are sort of guiding that sort of you know importance around the antenatal care and when they come into to labour. Generally, they're quite laid back, minimal sort of pain relief and things like that so Yeah, I don't think they see it as like a medicalized maybe pregnancy, maybe not as being medicalized and maybe they say it's quite a normal thing and you know that in in Africa that maybe they don't think that they need as much sort of care antenatally". M8

When I probed further in other conversations, some of midwives attributed being laid back to the culture. Stating that it probably is the culture of Black African women to act less concerned about the pregnancy process. They however said that the women being laid back prevented the midwives from communicating effectively with them.

"it's difficult to always pick up on that with their sort of laid-back kind of approach. I think it's different culturally and not just culturally, it's the age and the generation in various things. They have very different approaches. I think a lot of it, with the laid-back thing, it is quite a cultural thing really, you know they seem a bit calmer and slower and maybe it's more of an educational thing". M2

"I mean, not all the time and but I would say that generally, the large amount of African people that I come into contact with. They are quite laid back about their pregnancy care and generally, I'm not saying all because that would be putting everyone, inside. and I don't think they have the understanding of the importance of their antenatal care…". M8

Upon further inquiry with the same participant and other participants, to gain insight on reasons for their assumptions. Midwives said that they judged their being laid back from the women's attendance at antenatal appointments. They said that the women attended antenatal appointments late or a lot of them did not attend antenatal appointments at all. They also said they felt the women did not see pregnancy as a medicalized process,

therefore they did not take it seriously. They compared it with Caucasian women who came in and asked a lot of questions in the antenatal appointments.

On the other hand, some midwives said that they did not really think that the women were laid back. These midwives seemed to have an understanding of the different cultural dynamic that existed with Black African women. Being laid back was attributed to culture and upbringing. One midwife attributed the “being laid back” to the fact that Black African immigrant women had social support in form of their friends and family. They therefore did not really need the advice from midwives. This did not however explain their turning up for antenatal appointments late or not turning up at all.

“I don't necessarily think that the right word is a laid-back approach, I think, culturally, I think we are just that way in that It's not, it isn't that it's laid back at all. It's just a very sort of like, well, you know, I'm pregnant. I'm not the first person that has been pregnant. I'm not going to be the last person who's been pregnant. My mom did this. My grandma did this is just”,

I don't necessarily think it is a laid-back approach. I think it's more I don't know what the word is I don't, I don't really know what the real the right word is. But I don't necessarily agree that it's laid-back cos I think laid back kind of implies that they are not bothered but I But I think I wonder whether that also comes from not being from a culture of questioning things a lot as well…”. M6

After the interview with participant 8, who expressed the same view as some of the previous participants but a differing view from participant 6. I decided to reflect on my thoughts using a memo.

M2 and M8 are Caucasian (white British) midwives with 10-15 years of experience as a midwife while M6 is a Nigerian British (black) midwife with more than 15 years of experience as a midwife. M2 and M8 share the same perspective regarding being laid back while M6 has attributed it to being a part of the culture.

Being “laid back” and not seemingly involved could be a barrier to care. Although, M6 has explained in some detail about having the external support system as Africans as being the rationale for being laid back. The “laid back” theme could be a stereotype which could be negative. This type of stereotype could affect offering of care. Developing relationships with individuals, to which there is already a “negative” stereotype especially with regards to their presumed attitude to care, could have negative consequences.

Memo 5.1 Barriers to care-negative stereotypes.

I have used memo 5.1 to highlight some of the unconscious barriers that could exist in offering care to people of certain ethnic groups. This could also act as a barrier to offering healthy eating advice or any other form of advice to people of certain ethnic groups. Other cultural influences that fit into a different cultural dynamic and therefore had an influence on the behaviour of the women according to midwives was around the women’s spirituality. Midwives felt that the women’s spirituality got in the way of help sometimes.

“I think with the majority of women know who they work with it you know that the majority of women. It's not a case of ummmm doesn't matter what I do. God will protect me with majority It's God will support me so if you'll help me with what I've got to do. And now, just, you know, We'll, we'll together. And we'll do this I'll pray about it. And will get the help ummmm it's not many women that you get, who are the kinds who Just don't want to do what you've asked won't engage with what you've asked, and that that is because of a belief”. M2

Midwives also talked about other cultural dynamics such as the Black women’s perception of weight gain in pregnancy. They said that the “women saw eating well as being healthy”. One midwife explained that she felt that Black African women would benefit from eating in moderation. She also pointed that it would be a good idea if someone from that culture explained that to them.

“It might be because they think that I don’t know anything about their culture. I don’t know this, but I think that being a voluptuous woman in an African community is attractive isn’t it, and its seen less so in western society. So, I think that they are not going to listen to some

wizened old person, and they are thinking(laughs), hello, I am really healthy, and my husband likes it you know". M5

At this point in the interview, I have recognised the weight gain perception as a cultural influence on healthy eating. It has come up as a perception from midwives born from their interaction with Black pregnant women. It has also come up from interviews with pregnant women. I am curious at this point to understand the perspective from a midwife from the same cultural/ethnic background.

Memo 5.2 Reflective memo

Similarly, some Black African midwives who were interviewed agreed to the influence of culture in encouraging obesity, they however said that the problem could not be solved with a 20-minute consultation.

"And that's we are used to It's actually and there's nothing else being done and like also, it's always drummed into you like the more food you eat the more good you look. it's like they are forcing you to eat In that aspect you thinking, you've got to keep eating to be healthy. It is hard because you can't maintain a healthy, healthy diet or lifestyle because you're constantly eating…". M14

Other cultural influences include the pregnant women's family especially their mothers. Although the midwives that talked about it said that the influence was more noticed postnatally.

"The mother can be a huge Influence and I will use the term barrier. Because sometimes the mothers can be a barrier to aspects of care from my experience. And yeah, I think that If, if the professional doesn't understand the family dynamics that within certain cultural groups" M13

"Her main source of where she would get her pregnancy sort of healthy eating would be from her mum and what her mum sort of told her instead because her mom was quite a sort of important figure in her life, I think, and her mom was very what's the word, controlling over her". M8

5.2.4 Sub-category: suitability of the healthy eating advice

“No, indeed, I mean, not your topic, but it doesn't cater for vegans, for example, at all. So, it doesn't cater for all cultures at all. I did have a lot of Oriental patients that were obese, and it didn't. For example, cater for their culture and yeah And I assume it didn't cater for African women appropriately either”. M1

All interviewed midwives talked about the healthy eating guide and advice being unsuitable. Some midwives referred to the healthy eating guide as being “cold” and lacking “rapport”. Some of the midwives referred to the cultural unsuitability of the guide/advice. While some midwives referred to the unsuitability of the healthy eating advice in terms of the social context in which people lived including finance and their socioeconomic background.

“*I mean obviously the advice is for everyone. And it's presumably research best advice ermm So my did well everyone, everyone could follow it, but Yeah, obviously some, some women aren't going to be able to say… But I guess when I've, I've given healthy eating advice I've kind of said the same advice, thinking that knowing that that woman probably isn't in a position to afford these things”.* M10

Interestingly, although the midwives were aware of the social context of the individual in terms of finances. They made no effort to change the healthy eating advice to suit that context.

Actually, if you are looking at buying really healthy grains and fresh fruits and vegetables, it is quite expensive. There are a lot of south Asian women or women from the states that will buy in bulk and they will buy offers and they will buy less healthy foods because they can get more of it. They are budgeting, they are budgeting for their kids, they often aren’t interested in looking at the labels for sugar contents. You know one was astonished when she found out sugar was added to tomato soup, to tinned beans to all those things. There should be much awareness as to what else is put into food. They seem to think that a lot of them consider that when you buy tinned peas, it’s just peas and it’s not. Its high salt, its high water”. M5

Midwives also talked about the unsuitability of the healthy eating guide in terms of the environment that people lived in, for instance individuals that were asylum seekers or who had no recourse to public funds.

“So yeah, I don't think that guide is You know, any well minimal good first for people who are asylum seekers or who have got no recourse to public funds...Sometimes its financial constraints and because if they haven't got any recourse to public funds, they are not always entitled to the vitamins”. M8

Midwives also narrated that there were individuals who had specific dietary needs were not covered by the healthy eating guide, including people who had allergies.

"I think it barely meets any social context. It doesn't meet…a lot of people have dietary needs that they are not in control of allergies and celiac that they are not eating wheat and there is a lot of variants in people's diet, regardless of even their socioeconomic background before we go any deeper already doesn't meet any of their needs". M18

5.2.5 Sub-category: Addressing cultural needs

To address the needs recognised by the midwives, some midwives suggested the need to tailor the healthy eating information that was being offered to the women. Some women suggested that tailoring the advice would make the women take more notice of the healthy eating advice.

"So, I think having different leaflet tailored to them that will help massively And I know you're talking about Africa. And I think Asian people need a different kind of leaflet as well because I tend to i don't know i i tend to see them more than even Black African. But I think, yeah, I think those two people, those two races they need different leaflets" M12

Although some midwives talked about the assumptions by midwives that the immigrant women would adapt to a westernized diet.

"I try to change it slightly and I think it's also taking into sort of idea their sort of cultural sort of backgrounds as well because I think you know if people are new into this country. they sort try to sort of adapt to a sort of well westernized diet. And I think sometimes we sort of expect that". M8

Acculturation from the quote by M8 is seen as an assumption. Some midwives operate under the assumption that Black African immigrant women would adopt the host cultures diet/westernized diet. This assumption could be seen as a barrier to offering care.

Memo 5.3 Reflective memo

Other ways in which the midwives suggested that the health needs of the women could be addressed include cultural competency and unconscious bias trainings.

"*We do need more training in regard to unconscious bias. We need to do more training in terms of micro aggression, not only just with each other, but also with women that we are looking after We have something called the MVP maternity voices partnership, we have hardly any representation from the Black Asian minority ethnic, which is what we need... But I think actually what we need. What is more important. Or is just as important is the unconscious bias training of staff because just you hear conversation, and you think you haven't actually realize what you said and how that affects women that you just make it so that's what we definitely more".* M13

5.3 Theoretical category: Hard to engage

Although a majority of the midwives acknowledged that Black African immigrant women had cultural needs that were not addressed. Some midwives struggled with engagement. They used the term "*hard to engage"* to define the women. Hard to engage reflected what midwives felt were actual barriers to offering healthy eating advice to pregnant African women, midwives talked about some of the ways in which they felt that the women were hard to engage. They include barriers with communication, barriers with engagement, the need for knowledge and the difficulty in having healthy eating discussions. All of these factors caused Black women to be hard to engage These discussions are captured using different sub-categories.

5.3.1 Sub-category: Engaging

There were process and variations to midwives' definitions of engaging. These variations existed on a spectrum. Some midwives were of the opinion that Black African women "*were not accepting*" and "*did not want help*". Midwives said that they thought Black immigrant women did not want help and so they were not offered help. They also referred to Black African immigrant women as women who did not want to be told what to do.

"I've found out that that's not their priority. I've found out that no women would be asking you about what they should be eating in pregnancy except at booking. And I think that the day and age that we live in, people have so much access to so many different things, social media, internet and can find out for themselves what is good for pregnancy and I think that most of them would rather turn to that than sit and have a discussion about eating healthily during the appointment when there is a lot of other things that they are probably more concerned with rather than eating healthily if that makes sense." M7

“So, I used to work in Thames Mead, and we used to have a huge number of African migrant women who very rarely would ask for dietary advice or to be fair seek advice.it would definitely seem to be that they took a lot of advice from family and friends around their health than they would from the midwives”. M19

In trying to understand the women, one midwife asserted that the reason Black African immigrant women did not ask for help was because they did not want to exaggerate the pregnancy. They saw the pregnancy as a normal process and therefore did not need to question the midwives about it.

I think is more That they don't want to maybe exaggerate. What is happening. They accept it, if that makes sense. They accept the pregnancy and then They want to go with it. So, no thinking like, oh my god, something's happening as you know some people will be pregnant. They will, they will think, like, oh, something is happening. It's not a disease, they see it as is normal”. M12

However, there was a downside to not asking for help, which one participant linked to the assumption that Black African women are strong in pregnancy and therefore do not need help with pain management.

Unfortunately, because of that, because they are seen as okay with the pregnancy going with the flow. Sometimes, yes, they're not offered that pain relief when they need it because They might even maybe because maybe they haven't asked them. They're waiting for it or i don't know. Um, yeah. Unfortunately, that happens. or they are seen as they can do it. And they, they don't know go through this C sections or having epidurals and stuff like that because they think they you know they are strong, whereas the other you know races. They will, they will be, they will come through the door asking for pain relief. and they will be the first one to get it”. M12

This discussion has provided a health providers perspective to the general discourse around Black women accessing care especially for pain management in pregnancy. Although pain management is not the focus of this study, this discussion is important as it adds to the general discourse regarding epidural and pain management for Black women living in high income countries. Existing literature has revealed a disparity in the use of epidural anaesthesia along racial and ethnic lines. A dated retrospective cohort study by Glance et al 2007(Glance et al. 2007) in New York City recognised racial differences in the use of epidural analgesia for labour. Another study in the United States revealed personal ideologies pertaining to the pregnant woman to be the reasons that may account for non-acceptance of epidural anaesthesia(Roberson 2018).The study revealed that 33.3% of Black pregnant women living in America did not accept epidural anaesthesia in pregnancy. There

is a dearth of literature exploring the perspective of the health care providers regarding offering pain management during pregnancy, especially qualitative studies that might reveal general perceptions. There is also a dearth of literature in the United Kingdom regarding epidural pain management or the reasons behind not offering pain management. Although there is a dearth of literature regarding this in the UK, there have however been blog posts in the UK and the U.S (https://www.womenshealthmag.com/uk/health/a33323338/black-maternal-care/) and discussions (https://time.com/5494404/tressie-mcmillan-cottom-thick-pregnancy-competent/s) regarding Black women's pain being underestimated and this discourse lends credence to the ongoing discussion. It would be important to understand the bias that might exist both with respect to healthcare providers and Black pregnant women concerning the use of analgesia in pregnancy.

A memo was used to reflect my thought regarding this discussion.

Although, this discussion is at a tangent to this study, it is pursued because it lends credence to the ongoing discussions around barriers to offering care. It could either be seen as an assumption or a cultural barrier. It is an assumption in the sense that the pregnant woman could be waiting for the midwife to offer care, whilst the midwife could be expecting the pregnant woman to ask for care. It can also be seen as a cultural influence.

Participant 12 is an African and a midwife. It would be useful to find out if this perspective is a general perspective, or if the perspective by M8 is a general perspective with regards to communicating needs. That might fall outside the scope of this study but could illuminate some perspectives and biases that might exist if I continue to probe. There are a few studies that have been dedicated to epidural analgesia for Black women in pregnancy. But the perspectives of the women who have actually asked for epidurals and haven't been offered has not been sought for.

Memo 5.4 Barriers to offering care: Biases

In talking about engagement barriers, one Black African midwife felt that her experience of caring for Black women was different from that of her white colleagues.

*"I don't know, I'm gonna be honest, I think as a black woman my experience of caring for Black women is most slightly different to my non-Black colleagues. I think that if they had questions, they would ask me and maybe that's because often they just assume that I'm from an African background anyway so they can identify with me and I do identify with African people anyway, so I don't find that they don't ask me questions…"*M7

She however asserted that she did not offer healthy eating advice because she assumed that the pregnant woman already knew what she should eat. She stated that any assumption otherwise was beneath them. She compared Black African women to white women and said she was under the assumption that they were equally as learned as their white counterparts, therefore they could google their healthy eating information for themselves. Most midwives said that they felt that the women would always do like they have always done despite being offered advice.

"I again I do I do believe this, I think, ermm African women will agree with what midwives are saying But I think they're thinking, okay, they may be midwives don't understand midwives don't understand our background our dietary requirements. What we're expected to eat. We'll just agree to it will just agree with what they're saying. But actually, no, we just do our own thing" M11

On the other hand, a varying opinion by one midwife, talked about the fact that she felt Black African women came off as being easier to engage than some white women. She however agreed with the previous opinion that they were more determined to do their own thing.

"So, I think that there are difficulties in all these. And I think of Black women as they come off easier to engage than some of the white women really but probably more determined to do their own thing". M5

Some other midwives felt that Black African immigrant women were actually "hard to engage". Although this was not a very popular opinion, apart from their not asking for help, Midwives felt that Black African women engaged more with black midwives than they did with their white counterparts. They talked about pregnant women having easier conversations and dialogue with an African immigrant woman than a white British midwife.

"Whereas I find that in immigrant ladies, maybe, for example, and when it comes to with regards of if they had any previous children or um or like FGM or Questions like that they like No some of them. Some of them like say no but probably later in in their Pregnancy, they might reveal to have had it. And I think it's just it just, it just depends on the individual

themselves if they feel comfortable. But definitely, I have seen that Women are very guarded and actually thinking about it now, especially with like um domestic violence, abuse, you ask them, those questions and they say no. ask them if they have experienced that in their previous and they say no and then you might find later on their pregnancy" M14

However, some white midwives talked about ways in which improvement could be improved. One midwife illustrated the successes she had gained in engagement with Black African immigrant women using the continuity of care pathway and the pregnancy circle. She exemplified that engagement could be improved through continuous contact by the same set of midwives with the pregnant women.

The continuity of carer pathway: Midwife (M5) was a specialist midwife on the continuity of carer pathway. Pregnant women that she saw were often referred to her for specialist advice including but not limited to dietary consultations. She provided a lot of perspective on engagement, because she was amongst the people who implemented the "pregnancy circle" within the continuity of carer model in the trust following the advent of the better birth initiative. She reflected on the previous model of care that was used and how it was not effective and quite patronising. In this model of care, women with raised body mass index (BMI) were referred to the midwives, they were randomised and placed either in a pregnancy circle or they were referred to their continuity of carer midwives using the continuity of carer model. Pregnant women who were in the continuity of care pathway were placed with the same set of midwives during their antenatal visits for the duration of their pregnancy.

The result was that midwives were able to develop relationships with the women, which went further than offering advice at booking.

"And they develop a relationship to talk about what they eat and possibly what the family likes to eat. Are the aware of the nutritional content of that, are they getting their nutrients. And where do they live, how much money do they have. What are all the influences on their diet, can we help? Have they got any problems? Any social problems. Do they need to have some counselling with IAAPS? Are there any eating issues, anorexia or very typical raised BMI, are they motivated to exercise? Have they got access to places to exercise? Are they supported? It's not just diet really but everything put together. You really need to know your women really to give good advice".

She went further to reflect on the new model and the previous model that had been used.

"I think even being categorised like that is quite punitive really and then that pathway meant that you needed dietary advice and that pathway, you give them free vouchers to slimming world and entry into a gym. What they were doing was very tough. So, I came in from a

different perspective. It wasn't really an incentive; it was quite patronising. That's it. So, when better birth came in and we started doing the continuity model, then midwives started taking responsibility for their case load, to see the women very differently as individuals and they would give out the generic advice at first at booking and then as the relationship developed would make it more bespoke and more tailored to that person.

Therefore, even though women were offered generic advice at booking. The subsequent visits to the same pregnancy circle with the same sets of midwives ensured that a relationship was developed, and the advice given was more tailored to the individual.

She also acknowledged that she knew that the BAME community were more prone to diabetes and felt that they benefited more from the pregnancy circle and the continuity of carer model than any previous models.

This model of care was not the general model being used in the trust, therefore most other interviews with other midwives from the trust did not highlight these advantages. When the benefits of the continuity of carer model was being explored, some midwives objected to the model.

Other ways in which engagement could be improved as suggested by the midwives included being more relatable, speaking their language. These views were held by black and caucasian midwives.

*"I think you have to listen to them because they are deeply entrenched, they are what people believe and if they haven't seen anything to the contrary, it's going to be very hard for them to see what is evidence based, scientifically based but then again you need a very good relationship and you need to evidence what you are saying so ermm lots of old wives tales…So that's why that relationship is important to get their respect to be able to have that sort of discussions, meaningful discussions".*M5

*"I think the scenario that I was talking about is in terms of the language and dialect. So, if you yeah rather than yeah Because sometimes it was even though I've been in situations where the midwife is speaking English to the woman cos she can speak English. Suddenly they would switch into the woman's dialect. And then after the discussion, I would have initiated. It was just easier to speak in the woman's natural tone to get her to understand what needs to be done…"*M13

Four midwives also talked about engagement being improved through similar group representation or by improving representation. They reflected on the advantage of having the women who looked or spoke alike in same groups.

"*I also think that whatever the technique of the engagement was so say it was like a regular group, so more of a representation of more of a similar group or women would help. If they were doing like more like the groups like the pregnancy circles, not that it should be exclusive to the African women, but if there were more African women represented because I think very often, African women might think of certain groups as being for other cultures than themselves because they are not well attended by themselves or by their peers".*

She also talked about having the antenatal sessions in groups that looked like the continuity of care model/pregnancy circle.

"maybe having it outside of a hospital setting. I don't know, maybe like in a children's center or something a bit more accessible for these women and maybe sort of doing sort of Group antenatal sessions with just solely sort of that group of women". M8

5.3.2 Sub-category: Communication Barriers

Midwives talked about other factors that influenced their engagement with Black African women therefore causing them to be "hard to engage". They were generally referred to as communication barriers. Aspects of communication included "understanding/comprehension". Midwives talked about being "*unsure of the women's understanding*" of the language. They said that the women said "*one thing and meant another*". This was added to the difficulty in communication that arose during the pandemic. They were unable to conduct antenatal conversations and discussions over the phone.

"It is a lot different at the minute because of the pandemic, a lot of it is over the phone and sometimes you get a very different, ***sometimes they can say one thing and they are meaning another*** *and their reactions but over the phone it's difficult to always pick up on that with their sort of laid-back kind of approach. I think it's different culturally and not just culturally, it's the age and the generation in various things. They have very different approaches. I think a lot of it, with the laid-back thing, it is quite a cultural thing really, you know they seem a bit calmer and slower and maybe it's more of an educational thing. Maybe doing a specific information thing for them, maybe will probably not be a bad idea. You know, because it's the same leaflets that we give to all different cultures and languages and things like that, but you don't know if there is one, is there for Africans".* M2

I explored the theme with other participants to see if they felt that Black African immigrant women could not fully comprehend what the midwives were saying.

"And I think sometimes it's the poor language. Maybe if they don't haven't got the sort of Language, sometimes they're not always fully understanding what we're saying. And that's the other thing that comes with time constraint is that you have to use translators, or Google

Translate and Google Translate takes time and if you're using paid language line that again takes time. or you need to get a translator that costs money. And we're not always allowed to get translators for every appointment. It's usually only for the booking appointments and scans because of the cost to the NHS". M8

Some midwives went on to point out that apart from comprehension and understanding, communicating in basic English was a constraint.

I think is a barrier. And I think particularly if they haven't long been into the country if they they haven't got some because we have quite a lot of African women that speak French. And yeah, I do think It can be, not all the time because some of them do speak. But yeah, I do think so. And then we, as I said, we haven't got the resources or the time to accommodate these women, you have to do the best that you can, with You know, Google translator and then you don't get that. Relationship. I think because you're either on the phone through an interpreter passing phones to each other or you're doing it for an interpreter who is sat in the room, or you're using your phone to Google Translate. So, I don't think you've got that Sort of rapport, or that Sort of communication skill, because you know it's really different when you sit, someone who's speaking English. You sort of build that relationship with them. But when you're relying on other people to talk for you, I think, that sort of breaks down that relationship or doesn't help to build that relationship". M8

This view was not held by all the midwives. Some midwives felt that the women could communicate in English and as such they were able to pass their messages across.

"I don't think so, because unless they don't speak English. I will just even say language is a barrier. The ones that speak English. Yeah. No, it's not a problem. I think we find a problem when we are dealing with women who doesn't speak English". M12

Other midwives said that they felt that they had the duty of care to make sure that the women understood the message they were trying to pass.

*"Yeah, I've had that. For many, many times. But then you realize do they actually understand it and then just go over and just be like, this is what I mean is this how you Understand what I'm saying. And then they'll tell you, or you might gather what they're saying is this, and you say is this what you mean. And they say, oh, yes, yes. Or you might cos you might say something and then they might answer completely different, like they didn't understand the question. And then you reiterate".*M14

Although for some midwives, the consensus was that it was easier to deal with white Caucasian women.

“I would say probably the same ethnic groups that are usually a bit more difficult to get to like Asian women, they are not very open, it’s quite difficult to get anything out from them, difficult to engage and as well often their English is not very good, so that’s another thing. You know probably educated Caucasian women are the easiest to talk to on the phone and face to face because they … I kind of have the feeling that they know what they want”. M4

5.3.3 Sub-category: The need for knowledge

Knowledge was seen as one of the barriers to offering healthy eating advice. Some of the midwives interviewed had no knowledge about the healthy eating guide neither had they ever seen the healthy eating guide.

“Yes, I don't have any props or anything like that. I have no leaflets. We do not have them because all of our Notes are digital. So, there are leaflets on, the women download a little app. I honestly couldn't tell you if there was any healthy eating advice on it. I have no idea”. M15

Midwives also seemed to have no knowledge about the risks and consequences of unhealthy eating. One midwife said she was unable to relate unhealthy eating to increased risks of gestational diabetes and hypertension.

*“I don’t think I’d ever linked healthy eating to that. I mean, it sounds obvious, now that you've said it but I would you know I would offer them the glucose tolerance test, and I would explain it is based on your ethnicity that and, you know, women of your ethnicity have a higher Chance of having gestational diabetes, but honestly had never linked it to diet before. It's now that I think about it is very silly. I just hadn't I just, yeah. I wouldn't have talked about healthy eating in the context of that kind of thing of higher risks. And again, I suppose, because we have we have got a clinic and for women with high BMI is that It makes it easy to sort of shove the problem down the road because you think well, they're going to be talked to about it again anyway. ummmm so, you know, as you sort of feel, rightly or wrongly, you think I've got so much to talk about in this appointment and that you feel okay well somebody else is going to talk about that. So, I'll talk about something else”.*M15

Other ways in which knowledge barrier was seen was in an expectation by the midwives that the “*women should have adopted a westernized culture*”. They also felt that the “*women were lucky to receive the care that they received”*.

“I think, again, maybe we're expecting them to be sort of more into the Westernized culture of things and for them to sort of accommodate us, and change their sort of, you know, Behaviours and religious or cultural beliefs, sometimes”. M8

“More so if they're coming to the UK recently. I think that's what the culture is like in Africa. Don't want to make it stereotypical, but there are parts in Africa, you know, not very affluent people are very lucky to receive the care they received so they just appreciate what they do receive therefore not very likely to question it. What's happening, their kind of care that kind of thing”. M9

However, some midwives talked about the importance of the research being carried out and future research on *increasing diversity* to fill the knowledge gap.

“I think if ermmm if this research exists that will be helpful. So obviously I don’t know How to tailor it to an African woman. I don't know what her diet is like normally I don't know what she thinks is normal same for a woman. If she's Oriental. I don't know what she thinks is normal. So, I think if there's if its evidence based if this research exists, then it'll be easier for midwives to actually understand the advice and then give out”. M9

“I think for midwives as well to get sort of some training sessions to give them more sort of knowledge in relation to what we should be advising these women because although at the moment, we do have you have small clusters of these women. in time, we are going to get more. And actually, even though it is small classes. I think for them women, it's important that we should be giving them advice because they are at risk of having small babies. You know, diabetes, and I think yes, there's only a small group but they are important. So we should be getting the knowledge to be able to advise them. Correctly so maybe sort of more training for midwives in the area as well and making you know the women feel, I don't know, more welcome and sort of, you know, I don't know, sort of encouraging them”. M8

“I think sometimes there's, you know, if you yourself aren't that familiar with African food and African culture, then it's sometimes it can be a little bit difficult I think because you don't actually know what Food people might be eating at home. I don't actually know What is healthy in that, you know, what is it and what gets fried, I don't know the names of any of the food. So that might be difficult if a woman came to me and said, oh, I eat a lot of Whatever it is, I wouldn't know what it was to tell her, whether it was healthy or not, if that makes sense” M15

I have decided to term these quotes as the need for knowledge. It is apparent that there is a knowledge gap amongst the midwives. Knowledge in terms of risks and consequences of unhealthy eating. There is also a knowledge gap in terms of what sort of care that Black African immigrant women receive in their country prior to migration.

Midwives have acknowledged the need for trainings and discussions on diversity.

The lack of knowledge as a sub-category can be seen as a barrier to care and also as a misconception or a bias.

Memo 5.5 Reflective memo

5.3.4 Sub-category: Healthy eating discussions are hard

Another barrier to offering healthy eating advice was the admission by some midwives that healthy eating discussions were hard to have. Three midwives noted that there was an apparent difficulty associated with healthy eating discussions. They talked about BMI discussions being difficult and labelling, while some people were living with the fear of admitting they had a problem with healthy eating. Added to that, one of the midwives also talked about the fact that she had a large BMI herself and as such would make the idea of talking about healthy eating difficult.

"I suppose So yes, but I think I would find it a little bit more difficult for any women who had a larger body size, not just African women. I think just You internalize that sort of thing. Don't you. You know, you don't want to offend people you don't want to talk about it too much. And so, I think for me. The ethnicity isn't what is makes it difficult for me. It's just, I mean I and I have a large BMI myself, so I find it a little bit. A little bit hypocritical as well, sort of saying, Oh, well you know you need you need to eat healthily. Well, I don't clearly See me sat there. And so, I think I do find it difficult, I wouldn't Personally, say it was related to the ethnicity. I think I just would find it difficult. Anyway, I find it easy enough to sort of say, or you know you need to eat your Fruits and vegetables and all the rest of it, but specifically relating it to llall and especially you because you have got a higher BMI. I think that's why I would find it difficult" M15

On the other hand, some midwives noted that people generally knew and understood what healthy eating was and therefore they did not see any need to talk about healthy eating.

5.4: Theoretical category: system

The system issues referred to the problems that existed within the NHS as a system. These problems made the provision of healthy eating advice an uphill task. Three midwives talked about healthy eating as not being a priority in the NHS. One midwife noted the lack of resources to accommodate immigrant women. This was in terms of the general pregnancy experience, which included the lack of resources to pay for translators or language lines.

*"Yeah, I think sometimes that again hinders things because there's not sort of a large group of these women that we are sort of catering for And yeah, I think that that makes things quite difficult. I think if you wish to go into like St George's or Kings or, you know, inner London. Sometimes it might be slightly easier because you would have resources there because what I'm hoping you would have because you've maybe got more of a population that you're sort of serving and there'll be more need for it. I don't know".*M8

In addition, four midwives talked about budgets and cuts within the NHS, capacity issues (lack of) with Dietitians especially in the more urban areas.

"So here, if we were to try to see everybody with BMI 30 and above in in some kind of specialist service, it would just be impossible. It might be that if we go out into a more rural area, it might be easier because there'd be less people so and I suppose it comes down again to kind of where the budget money goes to, and I mean even here where we have a pathway for between 30 to 35 they follow certain there's certain things that are done in addition to your women who haven't got a BMI of that then over 35 to 40 there's a couple more things added in, 40 and above, there's more. But until you reach BMI of 40 now we've had to move it to 40 before you're even seen by a specialist the midwives who deal with pregnancy plus Between 30 and 40 now is just your named midwife, who has to make sure that these things are done because our numbers are just too big" M16

One of the issues with the general system that seemed to resonate amongst almost all the midwives was the lack of time to discuss about healthy eating. Midwives noted that they were expected to do so much with so little time, and more responsibilities were added without the addition of more time.

"I mean for booking appointments we get an hour and a half and then its back-to-back booking, so you don't have a space to sort of do the other things that you have to do after every booking appointment. So, it would usually take more than an hour and a half and running into the next booking so there really isn't time to ermm discuss at length about eating healthily and then so antenatal appointments again they are back-to-back, so you don't really have to talk to women about healthy eating". M7

*“I think sometimes it's time constraints. And I think that's a big thing in midwifery, and I think we only get allocated a certain amount of time, and particularly to do a booking and for each appointment and there's so much to fit into that. That time, you know, you've also got to do a 90 day to check blood pressure is a time constraint is a big thing. And because if you've got eight women in your clinic. Sometimes you can't sort of individualize everything to sort of have that time to spend with that woman. And to talk about the different things that she should be doing. So, I think that's sort of a big thing”.*M8

In addition to that, one midwife noted that there was no room for individualized care within the NHS.

On the other hand, midwives noted that to facilitate the uptake of healthy eating messages, the importance of healthy eating advice should be emphasized.

5.5 Chapter Summary

This chapter presents an account of the construction of the three theoretical categories and their analysis that emerged in this study. The three categories identified how midwives engaged with Black African immigrant women, the misconceptions, and the biases. It also narrated what midwives felt would be appropriate to facilitate their offering of healthy eating advice to this population. *There are cultural needs* explained how some midwives acknowledged that Black African immigrant women had cultural needs. *Hard to engage* reflected on some midwives’ perspectives about engagement with the women. While system acknowledged all the mitigating factors within the hospital system, that acted as barriers to offering care. The first and second categories highlighted the covert barriers that existed in offering healthy eating advice to BAIP women while category 3 reflected on actual barriers as narrated by midwives.

The findings from the narrations of the midwives also revealed an intersectionality of culture and identity. Cultural identity was acknowledged by most of the midwives, however not all of them felt that it was important. There were however perceived identities and societal identities that were highlighted in the midwives account which acted as barriers and facilitators to the offer of healthy eating advice to BAIP women.

The next chapter (chapter 6) analyses these findings to identify the core category from the findings from pregnant women and midwives. This will provide an understanding of the relationships between categories while bringing the different aspects of receiving and offering healthy eating advice into perspective.

Chapter 6 Findings- Theory and Core category

6.1 Introduction

The previous chapters (4 and 5) presented the findings of seven categories that explained how pregnant women engaged with healthy eating advice that was offered. It also explained how midwives interacted when they had to offer healthy eating advice to Black African pregnant women. This chapter presents the process of analysis that resulted in the identification of a theory that presents a comprehensive system of linked concepts that explain factors that influenced Black African Immigrant women's uptake of healthy eating advice during pregnancy. It also explains midwives' position concerning offering healthy eating advice to these women. In constructivist grounded theory, the construction of a theory is usually the focus and data analysis is carried out so that questions are asked from the data, and theorising is a continuous process. CGT forms a theory using the interaction between the data and analysis, which was formed from the shared experiences and relationships between the participant and other data sources (Charmaz 2006). The question that is being asked is how and why; how and why exists within the context of existing knowledge. Therefore, this theory is created based on the participants' shared experiences in this study and literature in the field. The origin and nature of a phenomenon can be understood by exploring how and why people engage in social processes and by offering a theoretical explanation for social processes under the phenomenon (Mills et al. 2006).

Due to the paucity of studies published in this field in the UK, most of the literature used in this study for theoretical sensitivity is garnered from around the world. The literature is however used with caution because a theory is contextually situated in time, place, culture, and situation.

In creating a theory, an emergent or core category would be constructed. This category explains the dynamics of phenomenon and the circumstances that surround them. Social interaction patterns people's behaviours: this category explains how people's behaviours are patterned. The purpose of conducting a GT study is to generate a theory that explains the patterns of behaviour that are significant to the people taking part in the study(Turner et al. 2018). Therefore, there was an attempt to explore the meanings that people attached as they narrated their experiences and to develop an understanding of how people understood a phenomenon and took action within their social context.

Exploring the meanings attached to peoples' narration of their experiences concerning a social process and determining how people understand a phenomenon forms their action

within a social context and is an integral part of GT. This makes it possible to gain insight into motivations for their actions and perception of the phenomenon (Charmaz 2006).

6.2 Core category

It is essential to state that although the study investigated how BAIP women engaged with healthy eating advice, narratives reflected the women's engagement with healthy eating advice and the antenatal care system. As indicated in chapters 4 and 5, I realised there were overt and covert ways pregnant women interacted and made sense of healthy eating advice during pregnancy. Subtle meanings were attached to words that reflected their engagement with healthy eating and antenatal care. In the same vein, I realised that midwives reflected on obvious and unobvious circumstances that influenced their decision to offer healthy eating advice to BAIP women. It also reflected midwives' views regarding women's engagement with the antenatal care system. Memos throughout the results have highlighted covert barriers and facilitators narrated by BAIP women and midwives. Covert associations existed when women or midwives talked about circumstances, they did not feel were barriers or facilitators, but the researcher felt they could significantly influence their engagement with the antenatal care system and with healthy eating advice.

Most BAIP women struggled to find a balance between the advice they were given and the context of their lives in society, their culture, and the pregnancy process. Some women initially engaged with the healthy eating advice but had to scale back after a while because of the unsustainability of the advice given the context of their lives. Midwives, on the other hand, struggled to understand the societal and cultural context of women's lives. Midwives who understood these contexts found it challenging to offer help due to the unavailability of resources. Individual resources such as knowledge, means of engagement or system resources such as the availability of a culturally appropriate healthy eating resource, time, capacity, and availability of resources were limiting factors.

Overall, the analysis suggests that engagement with healthy eating advice by BAIP women is a dynamic process. It is constantly changing, not only for pregnant women but for midwives as well. The change occurred when pregnant women accessed the antenatal system and were offered healthy eating advice. Previously, all they knew and were eating was their food. BAIP women managed the constantly changing process by maintaining their identity. The process of engagement with healthy eating advice was seen to be embedded within the "concept of identity". Pregnant women struggled with the concept of their identity while navigating the cultural landscape, the blending in process, the system, and the

pregnancy process. Midwives, on the other hand, struggled with understanding the identity of BAIP women amid a lack of engagement, the presence of individual biases and a lack of system resources.

The process by which individual categories and sub-categories were synchronised to reveal the core category is presented in figure 6.1. The quotes, codes and memos used for theoretical construction are also presented, providing insight into how BAIP women and midwives engaged with healthy eating advice and antenatal care.

The main concern for BAIP women was maintaining their identity, whether cultural or otherwise. The women had carved an identity for themselves, which was a blend of some aspects of their culture and their social identity. It seemed like an evolved identity. It was seen in how they defined healthy eating and how they stated their preference for their cultural food. It was evident in the lengths they or their family went to obtain their cultural food. It was seen in the way they depended on their family for healthy eating advice. It was also seen in how they followed traditional myths and taboos about pregnancy. Meanwhile, midwives had carved an identity for the women. This perceived identity was perceived by midwives to be part of women's cultural identity. For some midwives, there was an acknowledgement of the cultural identity of BAIP women. While for some other midwives, the sense of acknowledgement of the cultural identity differences came at the point of the interview with the researcher. There was, however, a sense of helplessness in dealing with that cultural difference. The differences in identity could also be seen in the individual biases as reflected by midwives. Management of the cultural identity of BAIP women did not come easy for the midwives. Problems with engagement and communication came to the fore. There were also problems with resources needed to manage these women's needs. The main concern for pregnant women in this study was the need to maintain their cultural identity while navigating the pregnancy process. They understood that life existed outside the process of pregnancy; therefore, although they made changes, the changes stuck close to what was familiar. Phrases such as "I am a Nigerian, I can't erase that", "I am an African", "healthy eating varies from culture to culture", "preference for own cultural food", and "they are forcing a new culture" was used to signify BAIP women's need and effort to maintain their own cultural identity. Phrases from midwives such as "they want to retain their African foods", "they are interested if it is not generic", "there is no room for individualised care", "Black African women are laid back", Black African women are hard to engage", "they do not want to be told" were used by midwives. The phrases showed midwives' acknowledgement of the differences in identity, stereotypes, and biases. Midwives also acknowledged and recognised BAIP women's efforts to retain their identity.

Immersion in the narratives of BAIP women and midwives allowed the achievement of theoretical sensitivity showing the mechanism through which BAIP women and midwives engaged with healthy eating advice.

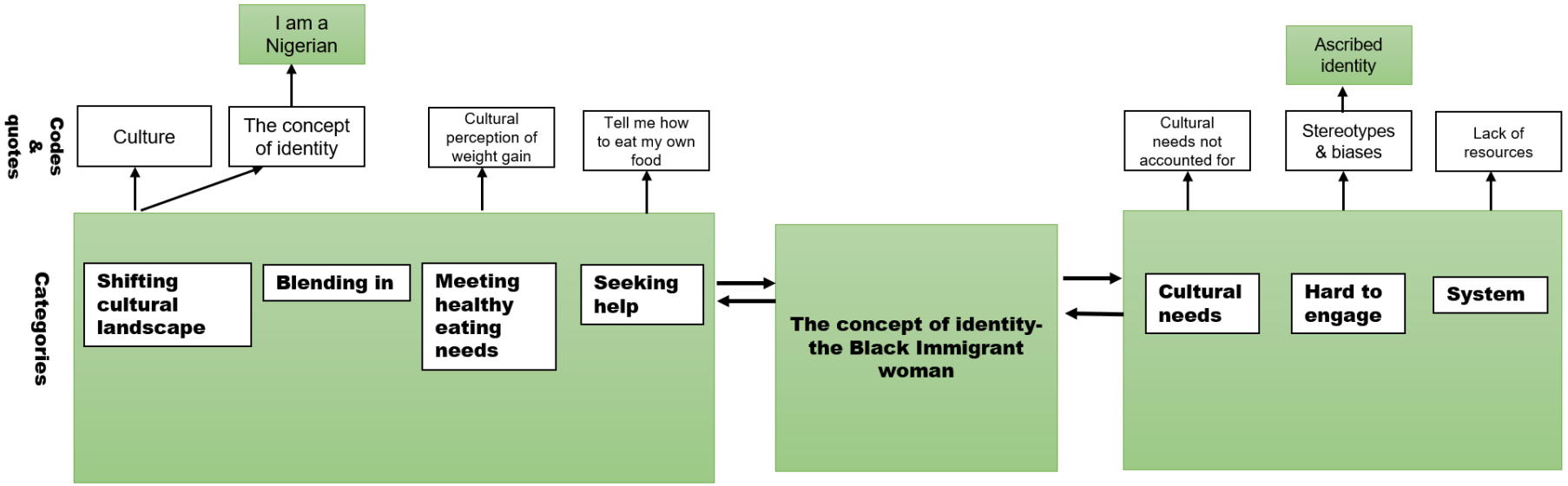


Figure 6.1 The emergence of the core category

6.3 **The concept of identity**

Identity is "the fact of being or feeling that you are, a particular type of person, organisation; the qualities that make a person different from others" (Cambridge dictionary 2019)—also defined as the reputation or characteristics of a person or organisation that makes the public think about them in a particular way.

To understand the concept of identity. First, I had to situate it within the existing literature. In sociology, the concept of identity development and expression has undergone modification in the literature. From being defined as a static concept and as something that we were created into, the definition has been modified to reflect the dynamic and constantly changing process of creating identity, especially in the rapidly changing world of globalisation and migration. It has been defined to include components of a person's race, gender, age, religion, national and regional entities, and culture (Horn et al. 2016). These components inform an individual's identity, which is constantly produced through social interactions and within discourse. It is argued that identity would not make sense outside the discourse in which it is produced. Tracy and Trethewey (2005) puts it succinctly by defining *identity* as the stable features of a person which exist prior to a particular situation and is built up over time from social interactions. Therefore, identity is not just something someone is born with; identity is dynamic and constantly constructed using social interactions.

There are different categories of identity; Ascribed identity and achieved/avowed identities (Collier 1997), initially classified by Ralph Linton (1936) and cited in (Foladare, 1969) as ascribed status and achieved/avowed status. Self-perceptions and the communicated views of others form identities. Self-perceptions form the achieved identity, while people's views form the ascribed identities (Giles 2003). For immigrants, identity is an ever-changing concept informed by their ethnic origins and the process of migration, assimilation, and integration into the now host community.

The concept of identity as a core category reflects who BAIP women think that they are, I am Nigerian, I am African. This might be termed their achieved identity. On Its own, *I am Nigerian, and I am African* could mean a geographic region and not necessarily an ethnic identity or a race.

"If I was an African that was born and raised here, I would be used to the food, and I would know more about the nutrient value of the food. The major problem I had was that, not that I didn't know some of their food that was good, but the problem again was that I didn't know how to cook them". P2

However, it could also mean a people, a culture.

And personally, out of fear, not because I don't know that they are wrong. Sometimes I say, I think what you are saying is wrong but I'm just like let me be on the safe side and then I don't eat those foods for example my sister-in-law has told me not to eat plantain, she says when you eat plantain, something comes on the baby's head or something. She just came up with something. I was like where did you hear this from. She insisted it was true. She also mentioned, like in particular cultures in Africa or even in some families, there are some foods that are forbidden during pregnancy in the family. I used to eat it sometimes, but they keep saying it and you would wonder if they are right, what if they are right, and I would regret it. So, there are some foods I stopped eating based on African myths, not because they are fact. Not because they are true, just because it is the belief." P1

The achieved identity reflects their place in the UK society and their expectations or non-expectations, also known as the societal identity.

"*We live in London, I believe. Are they looking for how the midwife will tell them how to make dietary changes with our Nigerian food? (laughs). That means they will have to employ someone who knows about our food".* P7

The concept of identity as a core category reflects midwives' perception of BAIP women. This perception could be called their ascribed identity.

Literature has suggested that the process of migration is time-bound, but the process of assimilation and integration is not time-bound (Klarenbeek 2021; Spencer and Charsley 2021). It could take a long time or might never occur. It is, therefore, essential to recognise and understand the stable features of an individual's identity, such as ethnicity or geographical origins. It is vital to phrase identity within contexts such as the UK, understand that identity is constantly changing and acknowledge the complex features of identity. It is essential to understand the multiplicity of identities, especially regarding immigrants. It is also vital to recognise the categories such as personal, social, and cultural identities that make up an individual's identity. The concept of identity as a core category recognises who BAIP women are in the UK context in relation to who they could have been if they had not migrated. The concept of identity recognises whom BAIP women are perceived to be in the UK society (ascribed identity) represented in this study by the antenatal care system. Who they are and the perception of who they are, affected their engagement with healthy eating advice.

Although culture was a principal finding in this study, the decision to use the concept of identity as the core category in this study and not the concept of cultural identity stemmed

from several factors. Identities are formed from cultural influences; however, culture changes over time and depends on society. The components of culture that an individual decides to adopt would make up the individual's identity. In addition, the concept of culture would be unable to explain the perceived/ascribed identity that midwives had ascribed to the women.

Therefore, the core focus is the individual identity that has been formed and an understanding of what influences the identity at that time.

BAIP women engaged with culture in different ways. The aspect of culture that all the BAIP women engaged with was food. Other aspects of cultural identities, such as taboos/myths, weight gain perception, and advice from family and friends regarding pregnancy and the pregnancy process, were not central to all the BAIP women interviewed. Therefore, although tempting, I decided that women's identity went beyond cultural identity. It reached into their identity in relation to their placement within the society and their perceived/ascribed identities. This was evidenced in generalised statements by midwives that should capture their perceived identities. For example, phrases such as "laid-back", "they do not want to be told", and "they are not accepting" were perceived or ascribed identities. It might be tempting to argue that ascribed statements such as "laid-back" depict the cultural identity of the Black African woman. However, this statement was a point of contention in the study, as some other midwives who had developed engagement strategies with BAIP women did not agree.

The use of cultural identity will tend to negate the other aspects of identity peculiar to the BAIP women, such as their social identity as an "immigrant". On the other hand, using the concept of identity will recognise all other forms of identity, including social identity and perceived/ascribed social identity.

The women's concept of identity aided them in their engagement with healthy eating advice offered and their efforts to stay healthy while navigating the pregnancy experience.

Embedded in the concept of identity was how BAIP women engaged with healthy eating advice in pregnancy and the antenatal care service. BAIP women felt that they had particular qualities, such as cultural qualities, and they were a particular type of people that distinguished them from others. At the same time, some midwives felt that BAIP women were different. Embedded in that difference were some stereotypes and biases that affected how midwives engaged with the women.

The concept of identity for the BAIP women in this study comprises cultural identity, social identity, and their perceived/ascribed identity.

6.4 The emergence of the concept of identity

The concept of identity came from interactions with different sources of data and higher analytical interpretation. "The concept of identity" provides insights into how pregnant women interacted with healthy eating advice while "navigating a shifting cultural landscape" during pregnancy. Pregnant women recognised the cultural shift as they accessed the maternity care system. The women reacted to the shift in culture by reflecting on their distinct identities "I am a Nigerian", "I am African". These understandings of their distinct identity helped them cope with the process. As a result, BAIP women categorised themselves as different. The concept of identity was seen in their definitions of healthy eating and their preferences. For instance, some BAIP women defined healthy eating in relation to their cultural foods.

"I think it's basically eating, okay, let me just say from my Nigerian perspective, eating what is balanced, eating a diet that is balanced. You know, ermm diet that has almost all nutrients. And ermm that is good for your body. I think that is what healthy eating is, and it varies from culture to culture because in Nigeria, what is healthy eating there might not be healthy eating here. That's just what I think". P1

And

"I would say culture because, ermm, I have tried to eat only what Is available, but it's not working. I still need to eat those African foods. Even when I am eating my veggies, that meat sometimes is kpomo and shaki. So, I would say culture. I don't think I would say availability because there is a market near us where they have all the Nigerian food. So, I would say culture". P7

"What is important to me is what I am used to before I came into this country. There are a lot of foods available on the street that I live on, and as such, I can get them whenever I want, but I will stick with what I am used to, for instance, for fruits like grapes, apple, banana, melon. I also have access to my cultural foods here in the UK. I get it from Peckham, so I can go and get it not minding the distance because that is what I am comfortable with". P5

Their cultural foods were indications of their *identity*. Their identity in the form of cultural identity was also reflected through their practice of food taboos/myths and their perception of weight gain. These are inbuilt perceptions that the migration process has done little to change for some women. Some women had followed these taboos/myths for their previous pregnancies. Women who were first-time pregnant women followed the taboos due to fear.

"*You know we have some African beliefs; I can't call it a fact, I will call it myths because it is not scientifically proven, but then they will call me from Africa and say … don't eat this particular food, it's not good for you and the baby*"…

"*But in Africa, there are some foods that are considered not good for you to eat during pregnancy. And personally, out of fear, not because I don't know that they are wrong. Sometimes I say, I think what you are saying is wrong but I'm just like let me be on the safe side and then I don't eat those foods for example my sister-in-law has told me not to eat plantain, she says when you eat plantain, something comes on the baby's head or something*". P1

And

"No, I don't think it has any effect. It depends on your background because even if you aren't eating, if you are meant to gain weight, you will still gain weight. It depends on your background". P5

The concept of identity was also reflected in the women's reaction to the new healthy eating advice offered. They called it "forcing a new culture.

"It's really hard; old habits die really hard. You can't get it's hard to change your dog to teach an old dog new tricks is going to be very difficult. you understand what I'm trying to say. So instead of forcing this habit on me, why don't you help me with what I know best and help me to change it in a way that will also benefit me. You understand what I mean".

The reasons for maintaining their identity seemed to be tied in with the concept of their own identity, "I am a Nigerian", "I am an African", and the understanding of healthy eating they had developed. Phrases such as healthy eating vary from culture were used to capture BAIP women's understandings of healthy eating. Phrases like "forcing a new culture" captured the women's frustrations at the healthy eating advice offered. "Forcing a new culture", "worried that they are taking it away" showed BAIP women's desire to resist the midwife's tendency to strip them of their cultural foods and habits.

"They talked to me about the normal food they eat here in the UK., but I'm not used to it; I prefer to get my own African food." P5

"I just try and shovel it together, but they can't deny me of my African food because I am not used to their food. So, I just mix it together and try to make it balanced". P6

Narratives from the pregnant women attested to their preference for their cultural food and cultural identity within their societal contexts, and these seemed to have influenced how they engaged with healthy eating advice by the midwives. These are unobvious barriers to the

uptake of healthy eating messages. Cultural definitions of healthy eating and cultural preferences, especially within the context of the unavailability of a culturally suitable healthy eating guide, meant that the healthy eating needs of BAIP women were not met.

BAIP women's *identity* was also reflected in how they *blended in* with society. Blending in with society was not for their sake but for the sake of their children. BAIP women maintained their ethnic and cultural identity irrespective of the years they lived in the UK

We could be reluctant to try something new, and it keeps going through the generation but with the fact that I am raising a son here. Sometimes when he gets back from school, he insists on eating something that he had seen in school, for instance, curry stew. Sometimes I have to learn how to make It for the sake of my son. I am now getting used to it; I can't deny my son if he wants to eat those things. Denying him will make him look like a total stranger to his peers. It is important to make him blend with the environment. For instance, also, my son likes broccoli, and I was reluctant to try it at first because it looked like a tree. But one day I tried it with rice, and I fell in love with it. I realised that I was denying myself of some things. Although I can't take cauliflower (chuckles). It has been hell of; it's just a tough decision due to our African blood". P6

BAIP women sought help managing their healthy eating needs before and during pregnancy. Most of the women accepted the help offered in the form of healthy eating advice from midwives. However, the advice was not sustained. As a result, BAIP women resorted to other means to cater for their needs, including the internet, social media, pregnancy apps and their family.

The help they sought was particular to their cultural and societal identity. For example, BAIP women sought help adapting their cultural foods to meet their needs.

"When I went to the midwife, I was told to eat a little bit more beans which, to be fair and completely honest with you, I've not eaten baked beans since I came to this country, so they advise you to eat baked beans. ***It's not my own cup of tea****. They advise you to eat some corn and some okra. I try to substitute what I can. They give you basically a leaflet that shows you the kind of food is supposed to be eating"…*

*"So, I've tried to substitute the foods I can't eat with what I know how to eat. For example, instead of baked beans, I cook my own Nigerian beans it's still beans and eat it. You understand what I mean".*P4

Within the society, they were Africans, Nigerians and, as one participant narrated, "had African blood"; therefore, within the context of the society, they had distinguished themselves based on their ethnic and geographic origin.

Apparent barriers to the uptake of healthy eating advice existed within the process of pregnancy and society. Pregnancy determined factors such as cravings, loss of appetite, and food aversions were satisfied within the context of their cultural identity.

"It's not that you don't eat them, but because you are pregnant, it's difficult to eat them. Take, for instance, fish, oh I like fish, but right now, if I go close to fish, I'm gonna throw up so I won't even go near it. Even though it's part of the healthy eating, it's part of the protein they told us is good for pregnant women, but even a can of sardine can make me throw up, so I won't even go near fish. So, I've tried to substitute the foods I can't eat with what I know how to eat." P4

The concept of identity for BAIP women is also seen within the intersectionality of the culture and society. For studies that have emanated from the U.S.A. regarding the influences on food behaviour for Black American women, the matriarchal nature of the households has always come up as an influence on healthy eating. The oldest female took healthy eating decisions in the household, usually the pregnant woman's mother or grandmother. Some schools of thought might think this finding is central to the black identity as a race, for instance, some midwives in this study referred to matriarchy in the Black African community. However, in this study, the healthy eating needs of the women were not controlled by the oldest female living in the house. All the women interviewed lived either in a nuclear family or alone with their children. Therefore, healthy eating decisions were left to the pregnant woman.

It might be culturally appropriate to live within multigenerational households or have parents living in the same households in countries in sub-Saharan Africa. There might even be matriarchal family structures in some countries in sub-Saharan Africa; however, when these families migrate, the chances of their external families migrating with them are slim. For the BAIP woman in the UK the context of the UK society necessitated the pregnant woman to make healthy eating decisions. However, these decisions were influenced by other factors such as their children or husbands. This intersectionality of culture and society has created a new identity for the BAIP woman, which is different from other Black races that live in the UK For instance, Black Caribbean or second-generation Black immigrants.

"What will I eat? If I buy this, would I eat it? Will the kids eat it? Will my husband eat it? That's gonna be the first thing on my mind, personal preference". P4

Within this identity, getting help for their healthy eating needs was difficult. BAIP women made voluntary decisions to change their eating habits for the baby's sake. While for others, the decision was based on a family history of ill health, their ill health, or the fear of obesity. However, they could not get the help that they needed. The help needed was such that it could suit their identity.

"I have tried to eat only what Is available, but it's not working. I still need to eat those African foods. Even when I am eating my veggies, that meat sometimes is kpomo and shaki". P7

Some BAIP women believed that there could obtain help if midwives were more accommodating. However, there was also disbelief by one pregnant woman that the help she sought could be obtained.

***"We live in London**, I believe. Are they looking for how the midwife will tell them how to make dietary changes with our Nigerian food? (laughs) That means they will have to employ someone who knows about our food. Well, I don't think I needed anybody to tell me about my Nigerian food and how to modify it. I think it was something I could have done by myself".* P7

On the other hand, narratives from midwives acknowledged the existence of "*an identity*" different from that of the women in the host country. Some also acknowledged the cultural needs of that identity, while others did not consider the differences in identity significant enough.

"*But I have given Verbal advice I've even off the kind of guided them to look on to the internet about what's available to African women and because I know that African diets are different to what like a conventional white British diet would be, and I know some African women. They can have problems with accessing normal what their normal diet is to what our normal diet is, and I know some women have struggled So I have kind of said to them, If you* go off *and look on look on the internet, you can find other sources of information that may be of benefit to yourselves, rather than just what the midwives in this area would have said would be a bit of benefit to you*".M11

Some midwives, however, assumed that BAIP women would lose their *identity* due to migration and acculturation.

"I try to change it slightly, and I think it's also taking into sort of idea their sort of cultural sort of backgrounds as well because I think you know if people are new into this country. They sort try to sort of adapt to a sort of well-westernised diet. And I think sometimes we sort of expect that".

Midwives also reflected on the fact that BAIP women did not ask questions and so they were not offered the help that they needed. Some other quotes that were used to relay midwives' frustrations include focused codes such as "antenatal care is not valued", "African women are laid back", "their spirituality gets in the way", "they see eating well as being healthy", "it's the culture", "our advice conflicts with their support system", "the culture does not question things".

"I think probably yes because what I personally find is that a lot more ladies of African origin are more laid back in their approach to things

it's difficult to always pick up on that with their sort of laid-back kind of approach. I think it's different culturally and not just culturally, it's the age and the generation in various things. They have very different approaches. I think a lot of it, with the laid-back thing, it is quite a cultural thing really, you know they seem a bit calmer and slower, and maybe it's more of an educational thing". M2

This was seen as a perceived/ascribed identity formed from her interaction with a few African women. It was not a universally accepted concept. Black midwives saw it differently from their white counterparts. This perceived/ascribed identity could be a barrier to the decision to offer healthy eating advice to BAIP women. This perceived/ascribed identity, coupled with problems with communication and knowledge gaps, affected midwives' interaction with BAIP women. Midwives termed BAIP women "*hard to engage*".

Engagement seemed to be a theme that ran through most of the discussions with midwives and a subtle theme that underlined discussions with BAIP women. The continuity of care model explained earlier in chapter 5 is an example of perceived/ascribed identity as "laid back" and how a different engagement model brought desired results. Midwives initially talked about pregnant women being more relatable with people that spoke their language, and this seemed to resonate with the pregnant women's views about midwives with cultural expertise making the journey easier. However, further exploration showed that continuous engagement was the missing link. BAIP women's cultural identity could have also been at play in determining how midwives perceived engagement from them. M6 explained this.

I think we're just not as intense about all these things as I think maybe our white counterparts can be. But I don't think that means that we're any less informed. I think we get our information in different ways, you know; so, when you might get somebody who would sit there and question the midwife to death and say, but this and this and this and this. You might get African counterparts say okay, I hear you, but I'm still going to go home and speak to my mom at the end of this and see what she says. So, I don't necessarily think it is a laid-back approach. I think it's more I don't know what the word is. I don't, I don't really know

what the real the right word is. But I don't necessarily agree that it's laid-back cos I think laid-back kind of implies that they are not bothered, but I think I wonder whether that also comes from not being from a culture of questioning things a lot as well. So, we're more likely to just accept and maybe go and talk to somebody that you know Rather than the professional that's giving you the advice rather than, say, oh, but can you tell me why you've just told me not to eat this? Will just take that on board, and we'll go somewhere else. But I think it's because of the culture that you grew up in, in that actually you don't question the medical profession professionals, what they say is, you know, you when I speak to some of my relatives that have had babies, you know, back at home and I'm asking them. Oh, so why did that happen. And they just don't know. But they're not bothered by the fact that they don't know.

In terms of system resources within the N.H.S., midwives complained about the lack of online resources that reflected the kind of foods that the women ate. They also complained about a lack of time, budget cuts and restrictions in getting language translators, lack of capacity, non-prioritisation of healthy eating messages and no room for individualised care as mitigating factors in offering healthy eating advice to BAIP women. The concept of identity would argue that if the system had recognised the unique identity of BAIP women, including their cultural identity, societal identity, ethnic identity, and their increased propensity to be susceptible to metabolic diseases including gestational diabetes and hypertension, then the priority should have been given to ensure that their needs are being met.

Three memos were used to evaluate my thoughts and show the data's existing connections. Refer to appendix 4 for memo 1 and 2, memo 6.1 below is used to show existing connections

What is happening? The pregnancy journey is considered a very important journey. For some cultures, it is laced with cultural meanings that form a part of the cultural identity of the individual. Within the context of migration and acculturation, pregnancy does not lose its meaning. It however takes on a new meaning that captures the new position of the pregnant immigrant woman, her position in her new society vis a vis her position back home, her cultural beliefs and inclinations and the type of support that she receives in her now host country. This becomes her new identity and is captured as the concept of identity. The concept of identity is subjective for all participants, unique to the immigrant women in pregnancy and achieved in different ways. The concept of identity drives how BAIP women understand healthy eating advice, engage with healthy eating advice, navigate healthy eating, and manage their health. The concept of identity also affects the way midwives perceive BAIP women. The perception in turn affects the way in which they engage with them and how much resources are made available to meet their needs.

Meaning and Connections: Achieving healthy eating in pregnancy for BAIP women is connected with how they view themselves and how others view them. They view themselves as belonging to a certain ethnic identity and therefore that affects the way they act and what foods they eat. When midwives identify with that identity, the process of engaging with healthy eating is easier.

"In the community I live now, I live in Deptford, its multicultural so you get some midwives that really give you advice on African food. They look at you and the way you look at the leaflet, they will just put the leaflet aside and they will talk to you from I guess from your background if they are from your background. Or let's say they put their profession away for one minute and talk to you as a human being which I really appreciated because it's more appreciative to me because they are talking to me from their heart. You can do this and that and you can eat this and that, even though they are not from the same background as you. They try to tell you about the food that you may eat from your own culture that will not harm you or the baby so yeah it's much more helpful".

Participant 4 (pregnant woman)

"I would have loved that leaflet to have something like my African foods tailored in the same way as the English one is done so that …you understand. It really matters, it matters to me. I would have really loved if it's like eating what's it called, if I am eating my ewedu and amala, the portion that I can actually eat it with. You know things like that, and it would have been more fun as well"

Participant 2 (pregnant woman)

Drawing from existing literature, Ngongalah et al … and Vanstone et al has indicated in reviews of evidence that pregnant Black African immigrant women hardly change dietary behaviours in pregnancy. Therefore, there need to be a recognition of that uniqueness

Impact Identifying, acknowledging and adaptation of system resources to take care of this unique identity can result in positive outcomes in terms of managing the healthy eating needs of BAIP women. It can also result in positive outcomes in terms of engagement with midwives and the antenatal care system. On the other hand, acknowledgment of this unique identity can result in the needs of these women being overlooked, which can negatively impact their health.

What does this mean? There is a unique identity that the immigrant pregnant woman has assumed that affects her relationship with the society. It is an identity that has been influenced by migration, adaptation and perceived identities that exists in her society. It is important that the identity of each individual BAIP woman is assessed and discussed. This is to understand how her role in the society has been influenced by the above factors and her societal context. Context such as finances, social support and the availability of healthy eating resources and healthy eating options. It is also important to understand how much midwives acknowledge the identities of these women and the influences of their perception on engagement. It is important that government and policy makers improve their understanding about this unique identity, in order to provide resources such as a culturally suitable healthy eating resource.

Memo 6.1 Expanding on "the concept of identity" as a feature of the core category

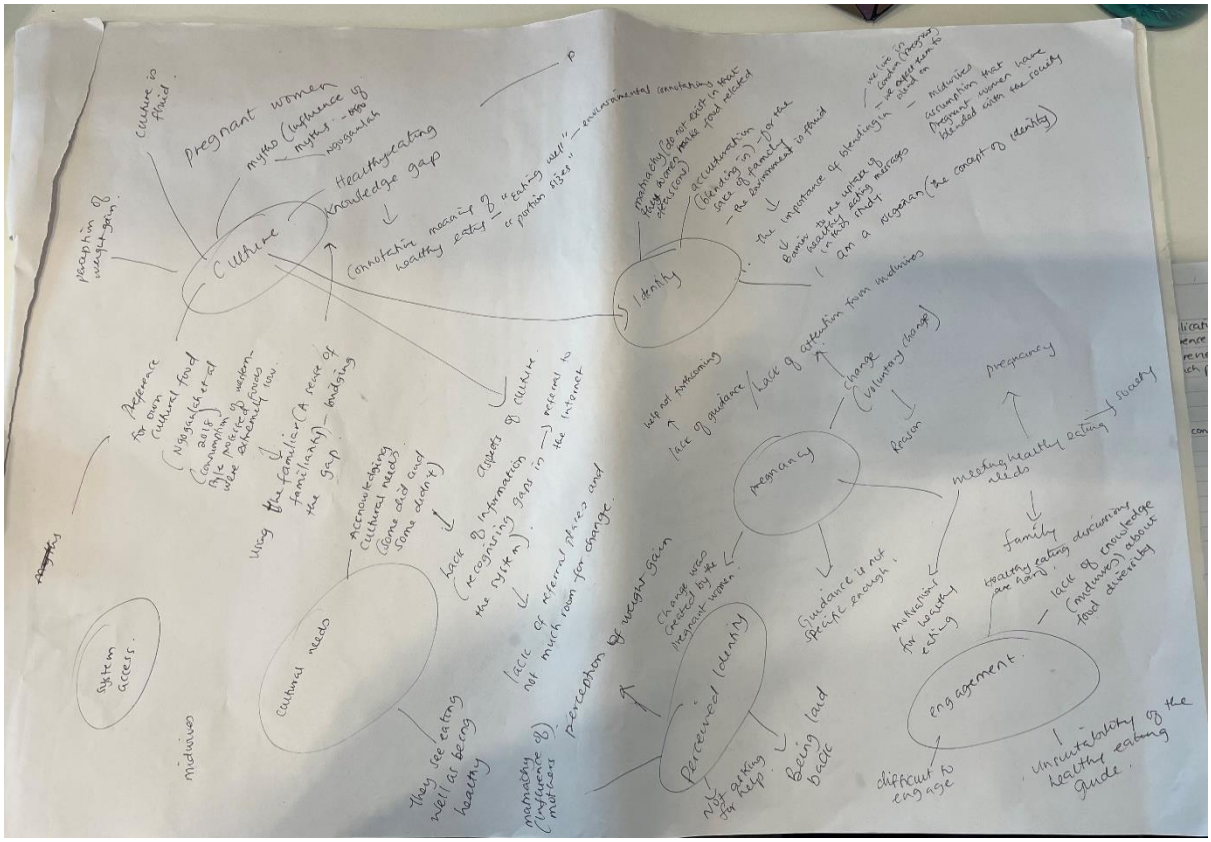


Figure 6.2 Mind mapping of the process to identify the core category.

The concept of identity seems to suggest that engagement with healthy eating advice in pregnancy depends on an understanding of the identity of the BAIP woman. These include the cultural, societal, and perceived/ascribed identities. The concept of these identities can operate as a barrier and facilitator to the uptake of healthy eating massages. This suggests that BAIP women's engagement with healthy eating advice depends on their ability to navigate and moderate their identity. It is also dependent on midwives understanding and acknowledging the identity of BAIP women and developing resources that can accommodate them.

6.5 Understanding "the concept of identity" as the core category

To establish a core category, it must take into account all other categories (Hallberg 2006). I entered this study with the premise that individuals are shaped by their environment, interactions, and societal context. The environment is said to have shaped these women in terms of what aspects of the culture they chose to practice and what aspects they chose not to. They, however, created an identity and maintained that identity. The identity seemed to be a fusion of their ethnic/cultural identity and what identity they have developed during the process of immigration. Acculturation: a concept assigned to the degree to which an immigrant fits into the host environment, has been mentioned in many studies. It has come to be expected as a given concept in many studies for immigrants. It is also mentioned in this study by midwives, assuming that the women will adopt the eating habits of the host culture. However, the concept of acculturation is challenged in this study. Even though there are attempts by the women to adopt the host cultures eating habits, they tend to withdraw and return to their cultural foods. It would be essential to study factors such as dietary patterns in immigrant communities retrospectively to establish to what degree acculturation takes place, being cognizant of years of immigration.

This study suggests that culture evolves within the ethnic identity and people construct their own identity as part of their social interactions within their ethnic group, culture, and society. The analysis process involves finding a core category that explains the participant's journey. *Navigating a shifting cultural landscape:* the process through which BAIP women moved from one culture to another was thought to be the core concern of the participants. I realised that although culture was influential, it was not enough to explain the women's identities. If we looked at the women through the lens of culture, we would be unable to explain the other variables that made up the BAIP woman in society. Their identity went beyond culture or ethnicity into societal identities and ascribed identities. We would be unable to explain why one BAIP woman engaged with taboos and myths more than another. I realised that culture was an element of identity. Other identity elements were the societal identity and the perceived/ascribed identities. I *am Nigerian*; I *am African* seemed like a statement seeking understanding. Most BAIP women were more concerned with reiterating their identity and asking for help to solve their problems within their cultural identity. Most midwives, even though they acknowledged the women's cultural identity, were more concerned with dealing with the perceived/ascribed identities. The concept of identity accounts for BAIP women's cultural, social, and perceived/ascribed identities whilst trying to engage with healthy eating, the antenatal care system, and the process of pregnancy.

6.6 The substantive theory: “The concept of identity”: The Black African immigrant woman

A theory is used to predict or describe a phenomenon. A theory has been defined as a conceptual framework used to identify connections, or the lack thereof, between concepts /constructs describing a phenomenon that advances knowledge in the field in which the phenomenon occurs and supports researchers and practitioners in the field (Turner et al. 2018). It is also essential to state what kind of theory is being developed. A substantive theory was developed by iteratively comparing incidents with incidents, codes with codes and categories with categories, observing the similarities and differences. It is called a substantive theory because it provides the starting point for this discussion towards developing it into a formal theory. To inform the development of a formal theory, the substantive theory would need to be situated in the context of the broader literature using constant comparisons. Substantive theories further the literature and can be used for research and practice development by researchers (Stewart et al. 2011).

This study grouped similar categories to form the theory "The concept of identity: the black immigrant woman". The concept of identity: the black immigrant woman moves the data away from descriptive analysis to analytical interpretation and theoretically explains the basic social processes involved in the healthy eating/antenatal care experiences of Nigerian women living in the UK, including the perspectives of the women who provide their care. The theory also provides a contextual understanding of this understudied phenomenon. It provides valuable insights into the experiences of Nigerian immigrant pregnant women as they navigate the antenatal care system.

Coined from a focused code in the analysis of the data from pregnant women, this theory reflected the daily struggles of the black Immigrant pregnant woman. Although the aim was to explore interactions with healthy eating advice offered, most categories that emerged from the discussions went beyond the topic of healthy eating advice and focused on issues related to antenatal care and engagement of Black women. This theory is expected to further the literature as no study has developed an identity for the immigrant woman that fuses all of her identities. Several studies have, however, enhanced behavioural change theories and theories of health behaviour to include components of Erikson's self-identity model, indicating that self-identity has a role in motivating human behaviour. For example, a study by Orji et al. (2012) extended the Health Belief Model (HBM) to include four new components, including self-identity as a determinant of healthy behaviour. Other components included perceived importance, consideration for future consequences and

concern for appearance to study eating behaviours of 576 participants in Canada. The study suggested that self-identity, concern for appearance and perceived importance components added to the HBM were significant determinants of healthy eating behaviour. In addition, the extended HBM model increased the predictive capacity by 78%. However, the study was not targeted at immigrant communities and did not include the ascribed or cultural identity as a significant determinant of people's behaviour. Therefore, it did not give a complete account of the influences of culture, ascribed/perceived, and ethnic identities in pregnant immigrant women's engagement with healthy eating and midwives' offer of healthy eating advice.

Figures 6.3 and 6.4 show pictorial representations of the explanation of the concept of identity and social processes involved.

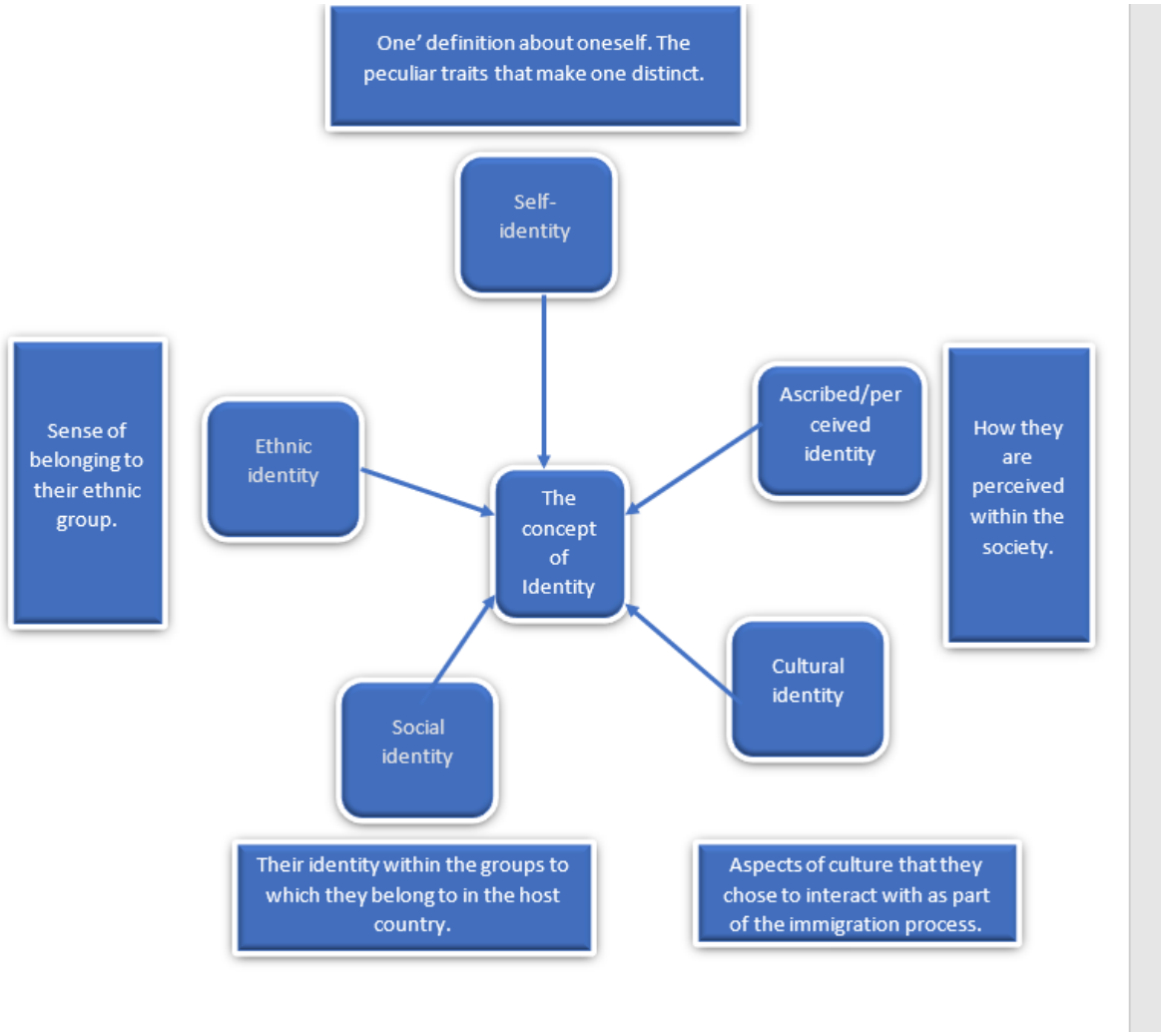


Figure 6.3 A diagram explaining “the concept of identity”.

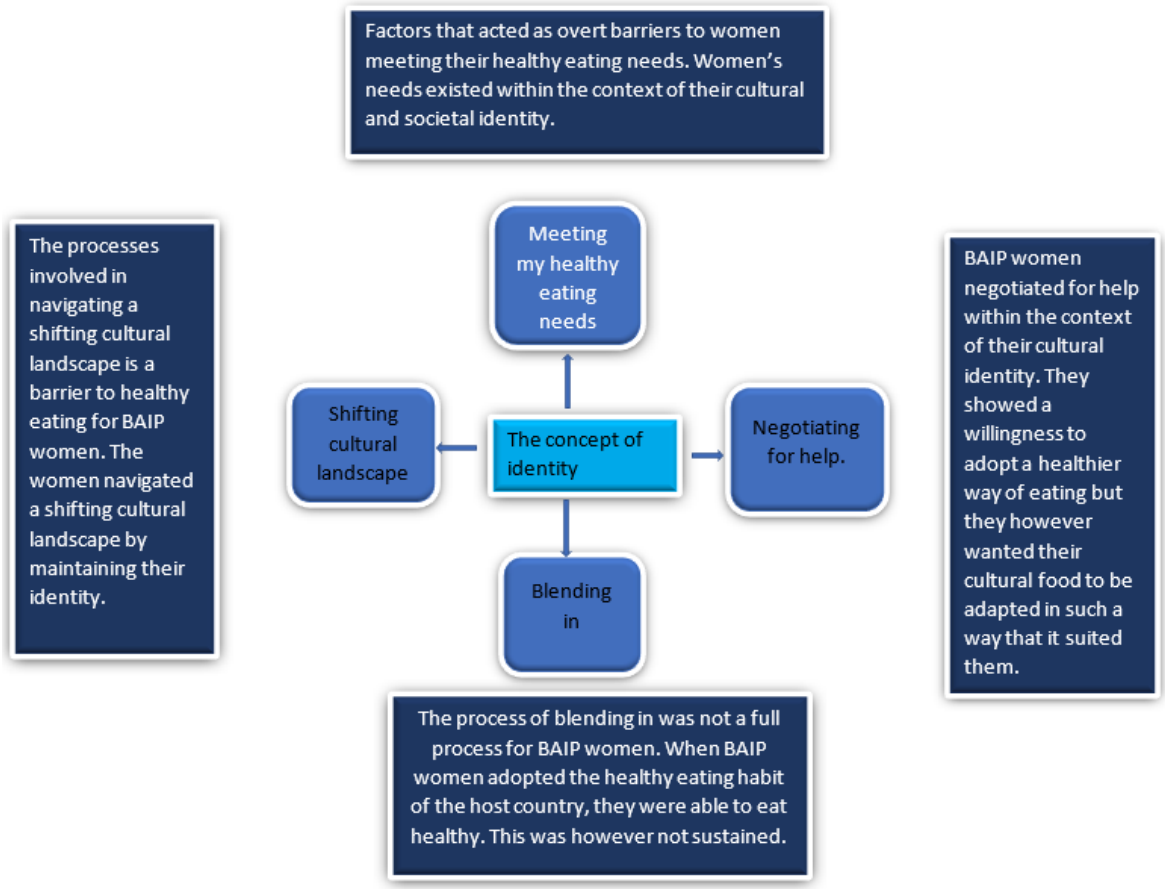


Figure 6.4 The concept of identity and the social processes involved in healthy eating for pregnant women.

6.7 Chapter Summary

This chapter presented an account of the construction of the core category as the outcome of the analysis. The concept of identity: the Black Immigrant woman explains how women understood and engaged with healthy eating advice while living as immigrant women in the UK. It also explained how midwives engaged in the process of offering healthy eating advice to the women. An understanding of the concept of identity can contribute to engagement with healthy eating advice and improving midwives' understanding of the immigrant woman, promoting engagement, and improving outcomes. While culture and ethnicity are essential,

as the women wanted to maintain some part of their culture and ethnicity, they do not make up the total identity of the woman. The ascribed/perceived identity will explain biases and misconceptions BAIP women face when accessing healthcare in the UK. These biases and misconceptions affect their engagement with healthy eating advice or interventions. It will also affect how midwives engage with them. This finding is essential as it can assist healthcare professionals in focusing attention on Black African immigrant pregnant women in the UK. The next chapter (chapter 7) situates the theory in literature and presents discussions of the principal categories, core-category, and the emerged theory in general.

Chapter 7 Discussion

7.1 Introduction

The study aimed to explore the perceived barriers and facilitators to the uptake of healthy eating messages by BAIP women in the UK. The study also sought to understand midwives' perspectives regarding the barriers and facilitators to offering healthy eating messages to BAIP women. This chapter discusses the key findings of this PhD study in relation to its objectives as mentioned in chapter 1 and the broader literature. The chapter is divided into sections. The first section discusses key findings that emerged from BAIP women and midwives. The second section discusses the substantive theory developed and places it within the existing literature. The final section discusses implications for practice, recommendations, strengths, and limitations of the study.

7.2 Discussion of key findings

Findings indicate that most of the barriers and facilitators to the uptake of healthy eating messages by BAIP women mirror previous studies on Latina (Hromi-Fiedler et al. 2016), African American pregnant women (Groth and Morrison-Beedy 2013), Caucasian (Vanstone et al. 2017) and African immigrant women (Vanstone et al. 2017; Ngongalah et al. 2018) living in high income countries. An intersection of cultural non-specificity, a discrepancy in dietary information between the host country and "home" country or between traditional/cultural sources and "scientific" sources, unfamiliar food choices and dietary information, and navigation between different cultural values may have contributed to these similarities. For example, the interpretation and understanding of "healthy eating" as being culturally defined in this study mirrors previous evidence on pregnant women from Sub-Saharan Africa in the United States (Iradukunda and Poudel-Tandukar 2021) and on African, Asian and ethnic Norwegian pregnant women in Norway (Garnweidner et al. 2013). Additionally, midwives in this study reported on the unavailability of time during antenatal appointments for healthy eating advice, this also resonates with findings of a previous review (Lucas et al. 2014), which included studies from some high-income countries like Australia, New Zealand, the USA, Canada, the UK and European countries and a more recent study by (McCann et al. 2018), in the UK.

The present study, showed that culture was multifaceted, meaning different things to different women. Engagement with cultural values from their home country was varied amongst the women in the study, thereby contributing to some differences in how women engaged with healthy eating advice and the antenatal experience as a whole. Such

differences seemed particularly pronounced in areas of cultural norms/myths, blending in, processes to which they negotiated for help and their motivations for healthy eating. Findings are discussed under five broad themes: culture, barriers to receiving and offering healthy eating advice: understanding cultural identity, ascribed identity, and knowledge. Other themes include other determinants, system challenges and sources of nutrition information in pregnancy. References will be made within the discussion regarding how the themes answer the study's research questions.

7.2.1 Culture

As stated earlier, culture was a very important element in understanding the barriers and facilitators to the uptake of healthy eating messages in this study, both from the perspectives of the pregnant women and the midwives. The proper conceptualisation of "culture" has been a topic of debate in the literature (Valsiner 2009; Jahoda 2012; Mironenko and Sorokin 2018). Referred to as a "magic word", Valsiner (2009) alluded to the difficulty in defining the word culture, especially judging from the metamorphotic change the word has undergone in several decades. However, as advised by Jahoda (2012) , culture should be defined based on the specific manner in which the term is employed and the particular context. Therefore for this study, two definitions will be used; culture has been defined as a "system of beliefs, traditions, customs, art, history, folklore, institutions, norm and values and their explicit expression as shared by members of a society, a community, or a group"(Ahmadi et al. 2019). In addition, Mironenko and Sorokin (2018) defined culture as a "multidimensional phenomenon that encompasses processes, products and results of human activity, material and spiritual, transmitted from generation to generation in a non-biological way… Culture also includes processes: external - social, ranging from individual to collective modes of behaviour (for instance, relating to constantly emerging and changing customs and traditions); and internal - individually-psychic". From the definition by Ahmadi, it is important to understand that cultural elements are shared by members of a society or community. In addition, from the definition by Mironenko, cultural values and elements are constantly changing and emerging. These definitions are important because they lay the context for this study.

Conceptualised in the social determinants of health model (Whitehead and Dahlgren 1991), culture is as an important determinant of health behaviour. Validating the social determinants of health model, this study found that food culture/traditions, traditional norms/values, and beliefs concerning perceptions of weight gain exerted significant influence on BAIP women in this study. The pathways to which these influences were exerted are discussed in the following sections.

7.2.1.1 *Food Culture*

The findings suggest that some pregnant women in this study understood healthy eating based on their culture. This finding answers the first research question; how healthy eating is interpreted and understood by pregnant African immigrant women in the UK.

Healthy eating was termed as eating their cultural food. As stated earlier, cultural definitions and understandings of healthy eating have been mirrored in other studies. In addition, a study with Iranian migrant women in Sweden found that Iranian migrant women used their "home" cultures food as a determinant of what is safe to eat during pregnancy and in developing an understanding of healthy food (Ahlqvist and Wirfält 2000). This finding is important especially for immigrant communities in determining the uptake of healthy eating interventions. There is an indication that there might be reluctance by potential recipients of an intervention if they do not agree to the potential "healthiness" of the "host" country's food. This study showed that there was a reluctance by some BAIP women to engage with healthy eating advice as offered during pregnancy. One of the reasons was their understanding of what food was "healthy". Most of the women in this study had not received healthy eating advice from a health care practitioner before arriving in the UK. The knowledge of healthy eating they acquired was socially constructed from their previous environment especially from friends and family. Some women had lived in the UK for over ten years but retained their culturally defined concept of healthy eating.

In addition, culture contributed to the women's reluctance to engage with healthy eating advice citing cultural food preference as a factor. This finding lends itself to research questions two and three. The findings suggest that the women preferred their traditional/cultural foods. BAIP women wanted suggestions on how they could make their traditional foods healthy. Lack of engagement with healthy eating advice especially in pregnancy due to the cultural inappropriateness of the advice has been previously reported (Bookari et al. 2017b). Culturally tailored healthy eating interventions have been said to be successful if a cultural component is added to them. For instance, (Piombo et al. 2020) incorporated foods according to the participants' culture in a healthy eating intervention for diabetes control for South-East Asian, North and Sub-Saharan African immigrants living in Italy. The study outcome showed a significantly positive effect on diabetes management and improvement in dietary habits at six-months follow-up.

In general, cultural influences on food intake have been reported amongst African American women in the USA (Everette 2008), Latina women living in the US (Fletcher et al. 2018) and Iranian immigrant women living in Sweden (Ahlqvist and Wirfält 2000). In this study and

related to the categories obtained, BAIP women were seen to constantly navigate a shifting cultural landscape regarding food culture. Although, most of them preferred their food and constantly asked for ways to improve it. Some women wanted to eat the “host” cultures food but did not know how to cook it. Some women relied on the internet for cooking information. They were also unaware of the food combinations. Some women needed help on how to cook these foods for the sake of their children. There is a constant movement for the women between cultures, the desire to do better, eat better for the sake of the baby, the inability to meet that need using the “host” culture’s’ food and the apparent inability to meet the same need using their traditional food. The difficulty of navigating between two cultures has been reported for Northeast African migrant women in Canada (Quintanilha et al. 2016). Although the navigation in that study was in terms of the difference in the culture of social support received during pregnancy back home and in Canada, the women in that study were constantly navigating a shifting culture.

The difficulty of navigating a shifting cultural food landscape has been captured in a recent study by (Ngongalah et al. 2021) in a sample of West African Immigrant women of child-bearing age living in the UK. The women in Ngoganlah’s study alluded to the new food environment being exciting and abundant, thereby changing their eating habits to adopt their host culture’s eating habits. In that study, participants went through acculturation when they first arrived in the country but then began to navigate between two cultures when they ‘missed’ their home country’s meal.

It was not within the purview of this study to explore BAIP women’s eating habits before pregnancy. However, some of the women in this study had alluded to the fact that they had access to traditional cultural foods and cooked them constantly because of their spouses. This might be linked to the traditional importance accorded husbands in African households or to patriarchy (Ogoma 2014). However, it cannot be concluded if this sample of women largely maintained their traditional dietary pattern before pregnancy or if pregnancy has caused navigation to their traditional dietary pattern. Or if they had changed their dietary pattern before pregnancy when they first arrived in the country just like the women in Ngongalah et al. (2021) but then reverted to the traditional eating pattern in pregnancy. Similar literature has shown that Nigerian (Sub-Saharan African) immigrant women maintained their traditional eating habits during pregnancy (Lindsay et al. 2014; Ngongalah et al. 2018). It is not known if pregnancy is the motivating factor in maintaining traditional dietary habits. However, the similarity between the two studies is the navigation process between two food cultures. The difference between the two studies lay in the voluntary and involuntary navigation between the two cultures. The participants in Ngongalah et al. (2021) “voluntarily” navigated between two food cultures due to excitement. However, in this study,

the navigation process was “involuntary”. Women were asked to choose the “host” culture’s dietary pattern for their and the baby’s health. There were however no resources that could support that change. Before pregnancy, the decision of what foods to eat lay solely with the woman, who could make the decisions without advice. However, the process of pregnancy has caused scrutiny into her diet from healthcare practitioners, friends, and family.

In addition, midwives in the study also assumed that the women had undergone the process of dietary acculturation; therefore, there were little, or no provisions made to accommodate the different cultural food needs of the women. This finding is very important in improving understanding about acculturation and points to which individuals are within the acculturation process (Satia-Abouta et al. 2002; Babatunde-Sowole et al. 2018). Dietary acculturation: adoption of the eating patterns of a new environment by immigrants is said to be a dynamic, compound, and multifaceted process. It is not considered linear where people move from one eating pattern to another (Satia-Abouta et al. 2002). Therefore, blanket assumptions and perceptions regarding acculturation especially with regard to developing interventions should be avoided.

7.2.1.2 *Traditional Norms and Values*

Cultural influences in the forms of traditional norms/taboos and values were significant influences on some BAIP women in this study. This sub-section answers research question three (chapter 1 section 1.7). Food taboos, pregnancy norms and taboos were found to be commonplace. Most of the women in the study had practised either a food taboo or traditional taboo especially for multiparous women. Cultural influences especially in the form of food taboos and avoidances have been found in studies about immigrant women living in high-income countries. For instance, Higginbottom et al. (2014) in a study of immigrant South Asian pregnant women living in Canada, found that cultural beliefs about food taboos dictated their food choices during and after pregnancy. Similarly Hussain et al. (2021) found that Pakistani-immigrant pregnant women living in the UK made decisions on food choices in pregnancy based on cultural norms about the perceived “hot”, “cold”, “good” or “bad” within their culture. Data from cross-sectional studies have found food taboos and myths to be common themes in countries in Africa (Ekwochi et al. 2016; Ugwa 2016; Vasilevski and Carolan-Olah 2016; Bezabih et al. 2018; Yakubu 2019; Tela et al. 2020; Tsegaye et al. 2021) and South Asia (Christian et al. 2006; Choudhury and Ahmed 2011; Lakshmi 2013; Levay et al. 2013) This finding is important especially as it shows that cultural practises transcend migration. Women who practised culturally related taboos in this study said they did it out of “fear”. It is important to note that a few women did not practise any cultural taboo concerning pregnancy. It is therefore important to understand that, how individuals make

decisions about health is usually ambiguous. Although immigrants especially as evidenced in this study strive to maintain culture and traditions whilst integrating evolving modern society and the effects of globalisation, the way that individuals replicate or resist cultural practices can be said to be related to their social location at that time (Higginbottom et al. 2014). The importance of social location is evidenced in the study by (Ngongalah et al. 2021). Study participants talked about cultural taboos and their inclination not to follow, questioning the taboos as harmful.

The comparison between this study and black immigrant pregnant women in the U.S is difficult as most studies in the U.S do not make distinct separations between Black Americans and black immigrants (Omenka et al. 2020). Therefore, the influence of cultural taboos and norms as an important predictor of the uptake of healthy eating messages for black immigrant pregnant women is an important finding both in the UK and the US contexts. Cultural norms in pregnancy encouraging the extra consumption of calories due to fear about having a small baby and not necessarily food taboos were found amongst Black American women (Groth et al. 2012a; Herring et al. 2012; Goodrich et al. 2013; Reyes et al. 2013; Whitaker et al. 2016) as shown in the systematic review in chapter two. Black American women were encouraged to eat more for the baby's sake. The finding mirrors findings in this study. Some women in this study were encouraged to eat more for the sake of the baby whilst one participant talked about weight gain being compulsory amongst African women. Generally, being a bit "bigger" was more acceptable amongst the women.

There was little to no indication amongst midwives that they acknowledged the existence of cultural norms and taboos and how that might influence BAIP women in pregnancy. However, some black midwives acknowledged that they took steps to allay the fears of pregnant women who discussed cultural norms and taboos with them. What was consistent amongst the midwives was that they acknowledged that pregnancy taboos and myths existed amongst all ethnic groups, although to a greater extent in some ethnic groups. In a multicultural society as the UK is tending towards, it might be challenging for healthcare practitioners to understand the various cultural norms and practices that exist with ethnic groups. However, it is important that they recognise the prevalent ethnic groups within their geographic region and be aware of the customary practises of these ethnic groups concerning pregnancy. Although, individuals would pick and choose what customary practises they would love to follow, increasing healthcare practitioners' knowledge would aid in offering advice when needed.

7.2.2 Barriers and facilitators to healthy eating

This section aims to synthesize pregnant women and midwives' perspectives on the barriers and facilitators to uptake and receiving healthy eating advice in this study. In addition, it attempts to answer research questions two and four (chapter 1 section 1.7).

7.2.2.1 Understanding cultural identity

Several models, theories and definitions have been used especially in the United States to develop understanding of racial/cultural/ethnic identity (Schwartz et al. 2008). This study would define cultural identity using the analogy by Schwartz et al 2008. According to (Schwartz et al. 2008) and (Arnett Jensen 2003), cultural identity refers to internalized values derived from cultural groups to which an individual belongs. Further expounding on the definition, Schwartz et al. (2008) collates and integrates other definitions of cultural identity to include constructs of identity. For instance, ethnic identity, individualism and collectivism, acculturation orientations, familism and communalism. Described as an amalgamation of the concept of the personal identity theory (Erikson 1968) cited in (Schwartz et al. 2008) and the social identity theory (Tajfel and Turner 2004), where personal identity looks at internalized goals, values and beliefs while social identity refers to values internalized from the groups to which the individual belongs. Whilst social identity would refer to any group that the individual belongs to, cultural identity refers specifically to cultural groups relating to immigrants (Schwartz et al. 2008). Cultural identity answers questions regarding an individual's identity as a member of a group and in relation to other groups.

Developing an understanding of cultural identities has implications mostly for receiving societies. The process of immigration and migration especially to western societies has made it imperative that understanding is broadened about the importance of an individual's cultural identity and how it can influence perception, engagement, and communication especially within the healthcare system context. For instance, individuals from cultures that have values centring on communalism, collectivism and familism would tend to rely on information from family over healthcare providers, therefore including members of the family in healthcare decision-making might prove to be more successful (Goodwin et al. 2018). Components of cultural identity or perceived cultural identity were highlighted in this study as barriers and facilitators to uptake and receiving healthy eating advice in the following ways:

1.*Engagement*: Engagement in this study reflected two flip sides of the coin. On one hand, pregnant women reflected on the lack of engagement by midwives while on the other hand,

midwives talked about pregnant women being unwilling to engage. Engagement was one of the most important barriers to receiving and offering healthy eating messages. Engagement in terms of developing relationships with pregnant women has been highlighted as a facilitator to offering healthy eating/weight management advice to women with high body mass index by midwives (Olander et al. 2019). Engagement has also been highlighted in a couple of studies as barriers to the uptake of antenatal care services by minority ethnic groups. Studies describing ethnic minority pregnant women's descriptions of their maternity care experiences in the UK (MacLellan et al. 2022) including the last report on Black maternity experiences survey (Peter and Wheeler 2022) have highlighted a lack of engagement as a key contributor to negative experiences of antenatal care. The present study adds to the evidence base for pregnant women and provides novel evidence around midwives' views regarding engagement with Black African women. Categories such as "hard to engage" and terms such as "laid back" were used as qualifying terms by midwives. These categories might reflect stereotyped and pre-conceived ideas (referred to as ascribed/ perceived identity in this study) about people from a certain ethnic group. These stereotypes can negatively impact the provision of care to that ethnic group. The findings suggests that pre-conceived ideas about the potential willingness of Black African women to engage with midwives and their "laid back" attitude towards pregnancy caused midwives to be reticent about engagement. In contrast, some black midwives ascribed the "laid-back" attitude to cultural differences in the understanding and perception of antenatal care. It was also ascribed to the patient-doctor relationship prevalent in sub-Saharan African communities especially in Nigeria, where individuals do not question healthcare professionals (Camara et al. 2020). This difference in cultural dynamics can affect engagement with BAIP women as the women might be waiting for information from midwives while midwives would assume that they do not need the information.

Extricating understanding of cultural identities from engagement discussions, a previous study by (Bookari et al. 2017b) had found that healthcare providers (HCPs) were "not forthcoming" in the provision of healthy eating information in pregnancy.

As a facilitator, midwives who understood the cultural dynamics and identities of the black community were better able to engage with the women. Midwives used different engagement tactics including developing relationships with the women using the continuity of carer model and group practiced care. Continuity of carer midwifery model (NHS 2017) has been identified in previous studies as a positive benefit for developing antenatal relationships in the general pregnancy population (Furness et al. 2011) and, particularly among the ethnic minority population (Puthussery et al. 2010; Beake et al. 2013; Goodwin et al. 2018). The continuity of carer model was mentioned as one of the recommendations in

the Better Births report (NHS 2016) and implemented as a model of midwifery care in the NHS in December 2017 (NHS 2017). At the point of this study, it had seemed that a few Trusts had partly implemented the model. It is important to note here that the continuity model of care was acknowledged by midwives and not BAIP women as a method to improve engagement. Similar findings were reported for midwives in Australia (Arrish et al. 2017). Midwives in that study emphasized the importance of the midwifery-led continuity of care model in developing relationships such that healthy eating discussions are person-centred and are enhanced in an environment built on trust, respect, and confidence. In addition, they believed that the continuity of care model provided time for deeper conversations on healthy eating that the women could absorb.

In addition, using black midwife colleagues who provided some familiarity was also used to improve engagement in this study and therefore acted as a facilitator. Both pregnant women and midwives acknowledged this. This finding mirrors findings from the Black Maternity Experience Survey (Peter Michelle and Wheeler Reyss 2022)and maternity experiences of minority ethnic women (Puthussery et al. 2010). Surveyed ethnic minority women reported that antenatal/ postnatal maternity teams with a diverse workforce seemed to understand and relate better. Pregnant women in this study that had midwives that related with them with a level of familiarity showed positive antenatal experiences and were positively disposed towards the healthy eating messages offered.

2.*Communication*: Communication was an important influence on how women received and how midwives could offer healthy eating messages primarily and their interaction with the healthcare system as a whole. Effective communication, especially between healthcare professionals and patients is an important prerequisite in providing quality maternity care (Britain 2007) and effective interventions. Language barriers have been shown to have a negative impact on access to healthcare, quality of care, patient satisfaction, and health outcomes in all hospital services, including obstetrics (Bischoff 2006; Almeida et al. 2013; Van Rosse et al. 2016). Language barriers and difficulty in communication between foreign born immigrant women and their caregivers in maternity especially in high-income countries has been reported (Ellis 2000; Wiklund et al. 2000; Bulman and McCourt 2002; Bischoff 2006; Straus et al. 2009; Bray et al. 2010; Henderson et al. 2013). A retrospective audit of antenatal care and obstetric outcomes of New European country migrants in Scotland showed that improper communication between the migrants and their healthcare providers affected their care (Bray et al. 2010). In the audit, communication was affected because there was an infrequent use of interpreter services in the Trust audited. The use of interpreter services has been recommended especially for patients who are not fluent in the spoken language accessing healthcare in the UK (Crawshaw and Kirkbride 2018).

Although these evidence's mirror this study in terms of communication, the present study reflected on the nuances of the English language and its influence on care. Subtle differences in meaning between words or phrases known as nuances affected how midwives especially white midwives were able to communicate with BAIP women. Midwives talked about the pregnant women's understanding of the English languages nuances and how it affected their care. Some midwives felt that the women did not fully understand what was communicated to them, so they would tell them one thing and they would go and do another. Instructions had to be repeated for understanding. Some midwives had to rely on other midwives of the same ethnicity to communicate the message to the women. Therefore, being of the same ethnicity or able to explain the message appropriately for pregnant women was seen as a facilitator to receiving healthy eating messages. Pregnant women acknowledged that midwives speaking to them as "human being" made them more interested in the topic they were discussing. Most midwives in this study acknowledged that BAIP women were fluent in spoken English and could communicate English, therefore there was an assumption that they did not need interpreters.

On the other hand, a previous study by (Puthussery et al. 2010) on the maternity care experiences of UK born Black women found that the Black women in that study did not face language barriers. The women perceived that their UK-born status and English Language competence were influential in getting good maternity treatment and being treated equally. In another study, maternity care professionals acknowledged that language competence and familiarity with the system were key advantages to better care (Puthussery et al. 2008). Additionally, the women in the previous study (Puthussery et al. 2010) also thought that providing a separate antenatal service for ethnic minority women would be inappropriate. In contrast, some midwives in this study advocated for provision of a service that catered specifically to the needs of these women without seclusion. These two studies reveal the homogenous classification of ethnic minorities and how that could affect service provision. The decision by some UK-born ethnic minority women to decline additional services as evidenced in the study by Puthussery et al. (2010), could affect the provision of care for other ethnic minority women who require care, if cultural identities are not understood. The study by Puthussery et al. (2010) seems to be in isolation as subsequent five X more reports has shown that communication problems are evident even amongst UK-born Black women. The proportion of immigrant women featured in the report was 4% compared with 70% UK-born Black women, therefore signifying that communication is still highlighted as a barrier to maternity care and as related to this study, a barrier to the receipt of healthy eating messages. It can therefore be argued that providing healthcare professionals with the knowledge and skills to allow them recognise similarities and differences between and within

various cultural groups could facilitate better care. Highlighting the importance of not just language but the nuance of the spoken language is important in this time where global migration is creating more culturally diverse societies.

Even without major language problems, poor communication can affect the care experiences of ethnic minority women. The presentation of healthy eating messages reflected other communication issues. Pregnant women were offered pamphlets and brochures or referred to NHS or baby bump sites for further information about their pregnancy. Pregnant women felt that the communication passed by the midwife's were not detailed enough, the websites were never accessed and the healthy eating information on pamphlets were termed "not culturally suitable". Pregnant women used phrases like "bare minimum" to capture the information that midwives gave. These findings mirror similar findings in Bookari et al. (2017b). Cultural inappropriateness of healthy eating information was mentioned as a barrier to the uptake of healthy eating information in that study.

In general, midwives mentioned the use of cultural diversity trainings within the NHS to promote understanding of cultural identities and how that would facilitate improvements in engagement.

7.2.2.2 Ascribed identity: Biases and stereotypes

Ascribed/perceived/imposed identity has been used in literature to refer to identities foisted on individuals from minority populations by majority populations based on certain conceptions of their ethnic identity (Rucker et al. 2019; Cornejo and Kam 2020; Wilson-Forsberg et al. 2020; Jongsma et al. 2021). Unknown and new behaviours by such minority populations are termed as generalizations and used to describe individuals from those populations (Jongsma et al. 2021). Furthermore, it has been deduced that how different groups are spoken about reflects the society's conceptions of who they are or are not (Barron 2005, Fairchild & Cozens 1981) leading to negative stereotypes and resistance to those stereotypes. In this study, some midwives expressed negative stereotypes and biases, thereby imposing certain identities to Black women. It is important to note here that there were no segregations along the lines of immigrant/natural born black identity, therefore the perceived/imposed identity referred to Black women as a racial group and not necessarily to immigrant women. Furthermore, this perceived identity did not only pertain to pregnant women; some midwives also used the perceived identity to refer to their colleagues who were black.

Phrases such as "they are laid-back", "they do not want to be told", "they will not listen to me", phrases referring to Black women as not understanding the importance of antenatal care, and not needing healthy eating advice due to their cultural acceptance of weight gain"

were used to indicate midwives' reluctance to offer advice. Literature has also referred to the resistance of such negative stereotypes such as in this study of immigrant black men in Ontario, Canada (Wilson-Forsberg et al. 2020) and its effect on educational attainment and negotiating identity. The study found that Black African immigrant men in Ontario tried to resist the prevalent imposed "violent black man" identity, to negotiate society. Most of the time, they failed at such negotiations. The present study found that negative stereotypes and imposed identity made some midwives hold back on offering healthy eating information to pregnant Black women, even though the feedback from pregnant women was that culturally suitable healthy eating information was required. Some pregnant women in this study made proactive efforts to keep healthy such as searching the internet for foods, joining the gymnasium before pregnancy, and trying to keep up with the healthy eating advice for those that were offered. Their actions present a different picture from midwives' assumptions about them. Pregnant women in this study still regarded the midwife's information as the most suitable and were willing to follow the information, sometimes at the expense of letting go of their food traditions. black midwives in this study resisted the negative stereotypes and cultural explanations for the "laid-back" attitude were offered.

Some midwives in this study referred to Black women as having culturally ingrained behaviours that needed breaking. The cultural inclination to get advice from family especially from their mothers was frowned upon by some midwives, calling the advice indoctrination. Several studies exploring the maternity experiences of ethnic minority populations in the UK has constantly cited negative stereotypes, biases and racism alluding to a general maternity issue (Bowler 1993; Henderson et al. 2013; Firdous et al. 2020; John et al. 2021; MacLellan et al. 2022; Peter and Wheeler 2022). This finding is important especially concerning antenatal services as research shows that women are more inclined to change their lifestyle in pregnancy for better outcomes for the mother and child. In addition, as stated earlier in chapter one, midwives especially in the UK have been positioned to offer healthy eating advice to pregnant women. However, problems with ascribed identity, negative stereotypes and biases could act as barriers to offering healthy eating advice as evidenced in this study.

7.2.2.3 Knowledge

Knowledge about healthy eating definitions, what constitutes a healthy diet, how recommendations translate to practice and correct portion sizes have been found to be barriers to healthy eating in this study and in the general pregnancy population (Sui et al. 2013a; Kavle and Landry 2018; Grenier et al. 2021). BAIP women talked about healthy eating in terms of eating their own cultural food. Women gave wrong definitions of a healthy diet, for those who attempted to define healthy eating or a healthy diet. Similar findings were

found in the general pregnancy population in the systematic review in chapter two, section one. Vanstone et al. (2017) similarly found that knowledge about the risks of gestational weight gain was a significant barrier to appropriate gestational weight gain in pregnant women in high income countries.

Likewise, some midwives in this study questioned their own knowledge about healthy eating and suggested that their lack of knowledge about healthy eating was a barrier to offering advice. Some midwives also suggested that they were not healthy themselves and as such could not offer healthy eating advice. Lack of nutrition knowledge amongst midwives and healthcare providers has been a recurrent barrier in the general pregnancy population (Arrish et al. 2017)

7.2.3 Other determinants

Social determinants of health such as finance, accessibility of healthy foods, environmental factors including distance to healthy foods were barriers to the uptake of healthy eating. They have been mentioned in the pregnancy population (Fowles and Fowles 2008) and the general population(Zorbas et al. 2018). In this study, finance was mentioned both by pregnant women and midwives as a barrier to healthy eating. Midwives reflected on the healthy eating advice as unsuitable for women without the financial means to purchase the foods. Pregnant women also reflected on finances as a barrier to healthy eating regarding the cost of healthy foods. However, interestingly some women in the study did not consider finance a barrier especially when it came to purchasing their cultural foods. Other barriers to healthy eating included lack of social support, the obesogenic environment and taste. These determinants have been mentioned in several literature in pregnancy and the general population. A systematic review of the challenges and facilitators to healthy eating in pregnancy highlighted related factors such as finance (Christian et al. 2006; Choudhury and Ahmed 2011; Levay et al. 2013; Reyes et al. 2013; Chang et al. 2015; Groth et al. 2016; Hromi-Fiedler et al. 2016; Takei et al. 2019; Grenier et al. 2021), lack of social support, accessibility (Hackley et al. 2014), taste preferences (Groth et al. 2016; Hromi-Fiedler et al. 2016; O'Brien et al. 2017), obesogenic environment (Anderson et al. 2015; O'Brien et al. 2017). This study adds to the existing body of knowledge regarding these determinants.

However, this study adds an interesting finding, BAIP women acknowledged that their family subsumed their healthy eating needs such as their husbands or children. Preliminary reading and literature review suggested that healthy eating decisions in black households in the U.S were made by the oldest female living in the household, suggesting matriarchal influence on healthy eating decisions. The reason offered was that black families in the U.S lived in multigenerational households and healthy eating decisions deflected naturally to the oldest

female living in the household (Reyes et al. 2013). The present study reflected on some of those findings especially as living in multigenerational households impacted on healthy eating for black pregnant women in the U.S. Questions on BAIP women living in multigenerational households were asked as follow-up questions. BAIP women in this study did not live in multigenerational households, therefore the women were responsible for all healthy eating decisions however there were other influences such as the needs of their partners and their children that influenced healthy eating decisions.

Physiologic symptoms of pregnancy has been mentioned as one of the determinants of healthy eating in this study and previous studies (Groth and Morrison-Beedy 2013; Grenier et al. 2021). Although it was not a consensus in this study, cravings and nausea were mostly mentioned by women in this study as affecting their healthy eating.

7.2.4 System challenges

System challenges acted as barriers to offering healthy eating advice to this population. Challenges include time limitation, room for individualized care, lack of resources within the NHS to accommodate the women and lack of cultural diversity trainings.

Time

Lack of/ limited time has been mentioned as a significant barrier to offering healthy eating advice by midwives in Australia (Arrish et al. 2016, 2017) and in the UK (Lucas et al. 2014). Time is an especially important barrier to offering in-depth advice. A previous study documented that time was especially important for midwives who were employed in hospitals that had a model of care different from the continuity of care model (Arrish et al. 2017). Although time was a constraint in the continuity of care model, the midwives in that study indicated that other models of care offered less time and opportunities for developing relationships that would aid in offering person-centred healthy eating advice. Midwives in the present study as with the study by Arrish et al. (2017) highlighted time as being disproportionate to amount of work the midwife was expected to do and the amount of information the midwife was expected to convey. Midwives in this study compensated for this situation by prioritising what information they would offer pregnant women and healthy eating advice was usually the least of their priorities. Previously, McCann and colleagues (2018) found that midwives focused on issues they felt were pressing concerns such as child protection and domestic violence leaving healthy eating as least priority (McCann et al. 2018). Additionally, just like in the study by Arrish et al, the midwife in this study who talked about the continuity of care model did not reflect so much on time as being a constraint to developing relationships.

Time in terms of ‘rushed’ antenatal appointments have been highlighted by women especially ethnic minority women in several studies in the UK (Puthussery et al. 2010; Jomeen and Redshaw 2013; Phillimore 2016; MacLellan et al. 2022). Similarly, women in Australia complained about limited time allocated to nutrition related issues during antenatal appointments as being a barrier to receiving nutrition advice by pregnant women (Bookari et al. 2017b).

Lack of resources within the NHS to accommodate the women

Midwives reflected on a lack of culturally appropriate resources such as healthy eating information to accommodate women’s needs as barriers to providing appropriate healthy eating advice. Midwives also complained about the lack of culturally appropriate online resources or materials within the NHS to which they could refer the women, making healthy eating discussions difficult. This discussion was especially elaborated by diabetes midwives who had worked with women from BAME background The lack of culturally appropriate resources has been highlighted by (Arrish et al. 2017) as a significant barrier to the offering of healthy eating advice to women from diverse cultural and linguistic backgrounds by midwives in Australia. Knowledge about what constitutes healthy eating and information about the UK Eatwell guide seemed to be lacking amongst most midwives interviewed in this study. This finding is similar to previous study in the UK (McCann et al. 2018). This is not peculiar to midwives in the UK; similarly, Arrish et al. (2017) found that amongst midwives in Australia. The lack of knowledge about nutrition guidelines was compounded by a lack of knowledge about other cultures and personal food choices like vegan diets and diets of ethnic minority populations.

Generally, BAIP women and midwives complained about the generalised nature and unsuitability of the healthy eating guide in the UK. This theme is also reflected in the review in Chapter Two (see section 2.4.5.1) especially in the U.S for studies that recruited African American women (Ferrari et al. 2013; Bryant et al. 2018). Other resources include a reduced number of dietitians within the NHS to accommodate women as highlighted previously by McCann et al. (2018) .

Cultural diversity trainings

Cultural diversity training was mentioned as a possible facilitator to engagement within the NHS and to healthy eating by some midwives. Other trainings included trainings on unconscious bias and micro aggression. As mentioned previously, statements reflecting biases and stereotyping have been mentioned as barriers to offering therefore midwives suggested that trainings that improved cultural diversity would act as facilitators to offering healthy eating advice and care.

7.2.5 Sources of nutrition information in pregnancy

This sub section answers the fourth research question (see section 1.7). BAIP women in this study relied heavily on the internet for their healthy eating information. Pregnant women sought the internet for either new information about their healthy eating needs or help with substitution information with regarding healthy eating advice offered by midwives. Although midwives supplied most women in the study with the healthy eating guide booklet in pregnancy, only two women referred to the information in the booklet. One of the women who used the booklet came from a trust with a modified form of the guide that had African/Nigerian foods. The other pregnant woman referred to the booklet for healthy eating information but used the internet for substitution information. The ability to use the internet for healthy eating information would lie on the literacy skills of the individual. There are also concerns about the reliability of the information gleaned from the internet. In addition, BAIP pregnant women talked about midwives referring them to the NHS sites for their healthy eating information, but most women did not access the sites.

Their next most important source of healthy eating information came from friends and family. Primigravida pregnant women in this study sought healthy eating information from their family and friends in Africa. The authenticity and reliability of healthy eating knowledge from friends and family has not been verified, indicating that friends and family may or may not have good nutrition knowledge. Midwives also offered healthy eating information, but BAIP women seemed not to engage with the healthy eating information offered.

7.3 The concept of identity: the black immigrant woman – understanding the intersectionality of identity and healthcare in the context of Black Immigrant women.

As mentioned in Chapter Six, a self-identity element from the Erikson's self-identity model was added to the Health Belief Model (HBM) by (Orji et al. 2012) and the validity was tested on healthy eating behaviour. The HBM (Rosenstock 1974, 2005) as a behavioural theory was developed in the 1950's to understand why people failed to undertake preventive health measures. It is the most widely and commonly used model for developing understanding and explaining health-related behaviours(Glanz et al. 2008). The HBM was extended in that study to include four new variables as determinants of healthy behaviour: "Perceived Importance, Consideration of Future consequences, Concern for Appearance and self-identity". It is important to note here that the study by Orji and colleagues (2012) is not alone in extending the constructs of the HBM by adding new constructs to improve its predictability (Yuen et al. 2020; Hita et al. 2022). However, this study has been chosen because of its focus on healthy eating behaviour. Additionally, most of the new variable(s) added to the

model are application area specific, meaning they only apply to the health behaviour domain under investigation. As a result, the extended models may be inappropriate in other areas of health (Orji et al. 2012). The suitability of the extended model was tested on 576 participants and validated on the healthy eating domain. The result showed that the predictability of the HBM was improved by 78%. This suggests that self-identity as a construct in addition to other constructs is useful in explaining health related behaviours such as healthy eating. It also provides evidence that self-identity plays an important role in the motivation of human behaviour.

To build on the new identity construct for this study, I would attempt to define identity based on existing literature. The definition of the term “identity” has undergone modifications in the literature. Identity has been used in different contexts to mean slightly different things. As indicated in chapter 6, identity definition has evolved from a static concept to a dynamic and constantly changing process. In Psychology, influenced by the work of Sigmund Freud and Erik Erikson, identity has been defined as how one defines the self, the important aspects of self and self-concept that give meaning to people suggesting that identity is self-defined. Erikson further elaborated on the definition of identity, a term used to describe a prominent and long-lasting aspect of one’s self-perception concerning a particular behaviour, implying that as one thinks so is the person (Orji et al. 2012). According to Erikson, identity develops within the context of social relationships and social institutions working either to promote or hinder the development of an identity. Subsequent definitions of identity would place identity as an on-going fluid process, constructed through social relationships, and it refers to the person’s understanding of his/her relationship to the world(Norton 2000; Sung 2022). Expanding the definition to include the communication theory of identity (CTI) (Hecht et al. 2005; Cornejo and Kam 2020), the CTI considers identity as individual and collective perceptions of self, relationships, communication, and communities that are established, maintained, and altered through communication and social relationships. Different frames within the CTI have been enacted to develop understanding of identity, they include personal, relational, enacted, and communal. An individual’s self-concept and personal characteristics make up the personal frame, the enacted frame relates to how individuals portray their identity in communication. Communal frame refers to an identity ascribed by a society based on group membership such as being Black African whilst relational frame relates to self-identities within particular relationships. The relational frame also relates to ascribed identities; however, it explains that individuals become aware of identities that have been ascribed to them and act accordingly. The CTI has been added to the definition due to its focus on identity and communication especially on ascribed identities and how individuals negotiate the foisted identities (Hecht, 1993; Hecht, Collier, & Ribeau; 1993; Hecht, Jackson,

& Ribeau, 2003). The theory posits that individuals internalise social relations and roles as identities through communication. Individual identities are then acted out as social behaviour through communication. Through communication, identity defines an individual and reflects social roles and relationships. Furthermore, social behaviour is a function of identity as expressed through communication. These definitions of identity reflects that all aspects of identity are self-negotiated with sociocultural contexts and communication. In addition, ascribed identities as reflected by CTI is communicated. Other attempts at defining identity have been mentioned in chapter 6 and relates to the relational frame of the CTI. For instance, Collier (1997) and Linton's (1936) cited in (Foladare, 1969) definition of ascribed and achieved identities define identity formation as self-perceptions and communicated views of others.

The present study expands on the literature regarding the definition of 'identity' whilst adding constructs to the definition of ascribed identity. The present study argues that the ascribed identity may not always be communicated. For example, midwives constructed an identity for BAIP women and black midwives that was not communicated to them. This foisted identity affected their delivery of antenatal care to the women. The term laid-back was a new term to many Black midwives. Moreover, the definition of identity relates to an individual's self-perception. Responses by Black midwives showed that they did not perceive themselves as being laid-back. The laid-back term is just one of the terms used to reflect on the stereotypes about attitude captured in the study. Therefore, this study posits that identity is the total of all reflections, communicated and uncommunicated made up of self-perceptions, ascribed, perceived identities and how that influences an immigrant's health. In addition to self-identity, an individual's identity could be comprised of societal, racial, and cultural identities. This study also suggests an intersection between cultural, ethnic/racial, societal, perceived and self-identity to form a unique identity. Although considered briefly in the results section, other forms of identity such as religious identity could be said to make up the Black immigrant woman's identity.

Unidimensional variables such as culture, racial identity, self-identity, ascribed identity have been used to understand the unique experiences of immigrants and explain the inequalities in health. For instance, Cornejo et al (2021) explored the effect of an ascribed identity on Deferred Action for Childhood Arrivals (DACA) recipients in the United States. The authors studied the different identities ascribed to forty undocumented immigrants and their views about how the ascribed identity influenced their perception about how they were treated within the society. In that study, using the symbolic interactionism theory and the communication theory of identity, ascribed identity was said to be communicated through the participants interactions within the society. As a result, the participants received negative

treatment depending on what names or ascribed identities that they were imposed on. The participants also reflected on the mechanism they used to resist the identities. The similarity between these studies points to the ascribed identity and how people learnt and resisted the ascribed identities. In the present study, it can be argued that BAIP women did not know about the ascribed/perceived identity ascribed by midwives. There was therefore no opportunity to resist that status and recreate a new identity.

In addition, very few studies have considered the intersectionality of the different elements in determining the health status of an immigrant and yet fewer studies have considered the individual subjectivities at intersectional locations. The classification and understanding of minority ethnic groups as homogenous also delineates the unique experiences of individuals within these ethnic groups and the within group differences that exist. And as this study would assert, the intersectionality of all the elements determined how pregnant women reacted to healthy eating advice. The failure of midwives to consider either the intersection of all the identities or the unique identities of immigrant women have resulted in reticence on the part of midwives to offering healthy eating advice to this population.

With relation to the immigrant, these identities are enacted based on self and their degree of acculturation and assimilation in the host country. Therefore, it can be said to be fluid. In this study, BAIP women decided what aspects of their cultural, ethnic, and religious identities they would interact with. Identities were enacted based on context and environment, for instance, some multiparous women followed myths and taboos for earlier pregnancies and did not for subsequent pregnancies. One reason proffered by a pregnant woman was that the lack of social support in the UK hindered her practices of pregnancy myths and taboos suggesting that in another context, she might have been more inclined to keep her cultural practices. That forms a part of a unique identity for that immigrant woman. However, her decision to refrain from engaging in certain aspects of her culture does not provide a blanket to which assumptions could be made regarding the willingness of another BAIP woman to engage in practising cultural taboos. As seen in this study, one pregnant participant provided reasons for engaging with cultural taboos in pregnancy. How individuals identify and place value on themselves and how societies and groups ascribe identity to certain groups has implications for a variety of societal and developmental outcomes. The Identity for BAIP women in this study has been formed by the interaction of self-identity, ethnic/racial identity, social and cultural experiences. In addition, their identities have been shaped by the perceived/ascribed identity of the society. For the sake of this study, in addition to the enactment of self-identity and perceived/ascribed identity presented earlier, an explanation of other identities, such as ethnic, cultural and social, and how it has been enacted within this study is offered.

A. *Ethnic identity:* Explained as fluid and context dependent (Yip 2005), it defines the measure to which an immigrant identifies with the culture and society of the host country and his/her country of origin. It explains the immigrants' level of attachment or commitment to a certain group (Phinney 1992; Epstein 2015). Ethnic identities are said to predict some outcomes for immigrants including economic (Constant and Zimmermann 2009; Epstein 2015) and psychological (Yip and Douglass 2013). In this study, pregnant women talked about their ethnic identity affiliation using words like "I am African" "being Nigerian". The sense of ethnic identity affiliation was strong amongst the participants. Phrases such as "*you cannot tell an African not to eat*…" signified that they had a level of attachment to their ethnic roots, which influenced their perception of healthy eating advice offered.

B. *Cultural identity:* can be defined as the emotional significance attached to our sense of belonging and affiliation with the larger culture. Regarding some of the immigrants within this study, their sense of affiliation was to their cultural food. Pregnant women talked about going the distance to get their cultural food. An understanding about healthy eating was developed based on their cultural food. In addition, some pregnant women considered the host country's food unhealthy. For women, who considered the host country's food unhealthy, healthy eating interventions focused on the host country's diet would fail to meet the healthy eating needs of these women. This was not the same experience for everyone, some pregnant woman and some black midwives reflected on the unhealthiness of the African/Nigerian diet in terms of the amount of saturated fat that was added during cooking. While some of these women wanted the African diet to be culturally adapted to meet their healthy eating needs, some pregnant women reflected on being taught how to eat the host country's food to meet their healthy eating needs. None of the needs mentioned above had been met.

The intersection of these identities created a unique identity for each woman in this study. Important emphasis should be placed on cultural and ethnic diversity and individual experiences within the societal, ethnic, and social context. A similar work by Dixon (2019) explored the intersectionality of cultural identities such as race, ethnicity, gender, socio-economic status and faith in understanding the health experiences of Black Caribbean immigrant women in Canada. The author asserted that the intersection of these cultural identities affected the Black Caribbean woman's ability to assert herself in seeking help for health-related problems. Compared with Black American women, who were more vocal in asking and receiving help, Black Caribbean women were more reticent in asking for help, relying on their faith to solve their problems. This present study reflects on the faith of the

Black African immigrant woman in conversations with some midwives, with these midwives asserting that the faith of the Black African immigrant woman stood in the way of her receiving help. This present study further reflects on the cultural and ethnic identity of the Black immigrant woman and their reluctance to ask for help even when they require help. It also reflects on the blanket assumptions made by midwives about BAIP women not needing help and how that influences their care. Explanations about “being laid-back”, including general explanations for the reticence of some Black women were explored by a midwife pointing to the general culture of not questioning health care providers that exists in Nigeria and how that could have influenced their behaviour. In addition, other midwives talked about manner of engagement as previously indicated and its influence on providing care for the women. In the UK, the intersection of various identities including religious identities and how that influences perceptions of care and health outcomes have been highlighted by a recent report on maternity experiences of Muslims living in the UK (Gohir 2022)

7.4 Implications for practice

Findings from this study highlight the need for midwives to be cognisant of the unique and intersecting identity of the Black immigrant pregnant woman as being an intersection between self, perceived/ascribed, ethnic, racial, social, and cultural identities. This unique identity could influence their experiences and decide what support is available for them. BAIP women’s prioritisation of their cultural identity and the unavailability of culturally suitable healthy eating advice or support could indicate that their healthy eating needs would be unmet. In the absence of culturally appropriate healthy eating information, the impact of unhealthy food decisions may be more heightened compared with natural born/second generation Black immigrant women or compared with their Caucasian counterparts. This impact needs to be acknowledged. Although BAIP women may not spontaneously ask for help as indicated in this study due to underlying assumptions, midwives may need to use their professional expertise to navigate cultural barriers and assumptions to provide help. BAIP women’s reluctance to ask for help should not be interpreted as being “laid-back”, “not wanting help”. Instead, healthy eating interventions and advice should focus on providing relevant, culturally adapted healthy eating information that would empower BAIP women to manage their diet actively. That should also include an awareness of cultural and religious beliefs that could influence the uptake of healthy eating messages.

In addition, the NHS Constitution for England encourages the individuality of healthcare by saying that services should reflect and be tailored around the individual’s needs and preferences. Therefore, in addition to recognising the cultural identity of BAIP women, midwives should recognise the fluidness of cultural identities suggesting that in tandem with

the NHS Constitution for England, individualised care should be promoted such that help is tailored around the needs of the individual. The theory “the concept of identity: the black immigrant woman” provides a valuable template that could improve understanding of BAIP women’s intersecting identities, thereby facilitating the achievement of culturally appropriate and individualised care for this population.

Based on the definitions for healthy eating in chapter one and the FBDGs, this study showed that BAIP women and midwives lacked knowledge of the proper definitions of healthy eating, components of a healthy diet, portion sizes and knowledge of how to translate recommendations. This shows a significant gap in the provision of healthy eating advice. The unavailability of portion size guidelines in some FBDGs from African countries might translate into a cultural theme encouraging big portions of food. This could be a barrier to understanding portion sizes, misinterpreting portions, and difficulty in translating recommendations into practice. This is a significant gap that needs acknowledgement. The essence of providing healthy eating advice might be defeated if individuals cannot translate recommendations into practice.

This study also suggested that pregnant women engaged more with spoken advice. This suggests that relational care and building engagement using the continuity of carer model might be more suited as women may be more likely to take on advice from a trusted/known individual. Additionally, some BAIP women were not too enthusiastic about leaflets and referrals to websites. They attributed their reluctance primarily to the advice being unrelatable and the bare minimum. There is, however, increased proliferation and use of online materials and applications to support healthy eating including, the UK government’s NHS Eat well online resource. These online resources enable quicker access to healthy eating advice and promote self-management using convenient and flexible approaches. There are indications of the usefulness of healthy eating applications and websites in promoting healthy eating. The women interviewed in this study seemed financially secure and literate enough to navigate online resources. Therefore, designing a relatable and appealing online healthy eating resource that could cater to the needs of Black African women in addition to spoken advice may help improve the uptake of healthy eating messages amongst this population. There is a dearth of research in the UK exploring the uptake of healthy eating messages from online applications amongst the Black population; however, a systematic review on eHealth weight management interventions has shown that Black people may engage more with mobile eHealth interventions if offered in addition to human support (Bennet et al 2014). The major concern for this includes as indicated in this study the short time allocated for antenatal appointments and the lack of prioritisation of

healthy eating discussions within the NHS. Time and prioritising healthy eating advice are system issues requiring multidisciplinary approaches including policies.

Specifically for this study, the findings highlight that ascribed identities are not usually communicated but might influence care provision. Therefore, highlighting the crucial role that midwives should play in challenging assumptions, stereotypes, and ascribing identities to specific groups. Problems with “being hard to reach” was mitigated using increased engagement, suggesting that the continuity of care model of midwifery or other practises that improve engagement may be successful, especially with racialised minorities. Prior and increased engagement with Black women was found to be useful by the researcher as a recruitment tactic, as shown in chapter 3.

The recognition of engagement barriers and how to mitigate those barriers, as shown by some midwives interviewed in this study, amplifies the commitment of midwives to continue to deliver healthcare devoid of cultural and stereotypical barriers. Recent findings published by Gohir (2022) on the Maternity Experiences of Muslim women living in the UK highlights the increased recognition of intersecting identities and their influence on women’s perception of antenatal care, further highlighting the need for training in cultural diversity, stereotypes, and biases as a proactive measure in addressing the provision of care for racialised minorities.

Additionally, engagement biases, stereotypes and ascribed identities in this study has brought to fore the increased usefulness of continued trainings on cultural competence and sensitivity. This study has also brought to the fore the importance of cultural safety discussions especially within the NHS. Cultural competence, which is a multidimensional construct, refers to the capacity of individuals to establish effective working relationships that transcends cultural differences through the recognition of the effects of social and cultural influences on individuals and how these factors interact to influence healthcare and social behaviours (Saha et al. 2008). Furthermore, cultural sensitivity refers to the acceptance of the cultural differences that exist between individuals (Tucker et al. 2003).

However, further expanding the literature with regards to reducing health inequalities, the concept of cultural safety has been increasingly recognised. First developed in New Zealand and made a requirement for nursing and midwifery training in New Zealand, cultural safety is a framework based on the concepts of partnership, participation, protection, and power (Wilson and Neville 2009; Curtis et al. 2019; Kaihlanen et al. 2019). It refers to an examination of inherent power imbalances that exist between healthcare providers and patients and how that acts as a barrier to providing care. Cultural safety necessitates that healthcare providers question their own biases, attitudes, assumptions, stereotypes, and

prejudices, that may contribute to low quality care for some patients. As opposed to cultural competency, cultural safety focuses on the culture of clinician and the clinical environment rather than the culture of the patient (Wilson and Neville 2009). Although cultural safety has been recognised in the UK, it does not look like it is widespread (Lokugamage et al. 2021). Albeit the concept of cultural safety is increasingly being recognised as necessary to achieve health equity. Health practitioners, healthcare organisations (NHS) and policy makers would need to challenge "power structures" as well as the existing cultural systems in order to improve engagement with ethnic minority populations like the black population.

In addition, promoting increased representation of Black women in the healthcare profession especially as midwives has been shown to improve engagement in this study. Although greatly hampered by COVID 19 measures, prior PPI engagement and subsequent recruitment of participants for this study indicate that Black women may not be "hard to reach" as suggested in literature and in this study.

7.5 Recommendations

7.5.1 Recommendation one: modification of the content of healthy eating advice in pregnancy for BAIP women

Knowledge about healthy eating was identified as a barrier to providing, accepting, and understanding healthy eating advice by BAIP women and midwives. Improving nutrition knowledge specifically targeted at improving knowledge about what constitutes a healthy diet, normal and healthy portion sizes of cultural foods and healthy food substitutions could be an effective means to mitigating this challenge. This could be in addition to specific midwifery trainings aimed at improving nutrition knowledge including how nutrition knowledge can be translated to practice and the consequences of unhealthy eating. In addition, lack of a culturally adapted healthy eating advice was a barrier to midwives especially specialist midwives and to BAIP women. Cultural adaptation of healthy eating guidelines to meet the characteristics of the target population has been shown to increase engagement and acceptability (Maafs-Rodríguez et al. 2022). It is important to note that This recommendation includes cultural adaptation and provision of factual information and education aimed at providing BAIP women with skills to manage their diet. It is also aimed at providing midwives with the necessary skills to support pregnant women.

7.5.2 Recommendation two: individualised and tailored healthy eating advice and support

The NHS constitution of England and other studies recommended patient-centred and individualised care in healthcare (Hemingway and Bosanquet 2018; NHS 2022). This study

has shown that even though some women indicated that they preferred their cultural foods, there were other women that wanted information on how to modify the host country's food to suit their healthy eating needs. This suggests that every individual might not be inclined to eat their cultural food. This ties with the fluidity of cultural identities as indicated in chapter seven. Therefore, individualised and tailored healthy eating advice should be promoted such that healthy eating advice is tailored according to individual needs. This requires a patient-centred approach. The use of the patient-centred approach involves joint decision making between healthcare providers and the recipients of the intervention leading to healthier choices. Barriers to patient centred care is engagement as indicated in this study. This was shown as reticence on the part of BAIP women and ascribed identities on the part of midwives. This thesis suggests that when working with BAIP women, midwives and other healthcare professionals involved in their care would need to adopt an interactive and engaging approach aimed at understanding engagement barriers and how to circumvent them. One of the methods used by some midwives in this study was the continuity model of care and the pregnancy circle. As suggested in chapter 3, Black African women are not "hard to reach" as suggested in some literature, methods of engagement needs improving upon.

7.5.3 Recommendation three: modification of the delivery of healthy eating advice in pregnancy for BAIP women

BAIP women in this study identified that they related with spoken advice than leaflets and online application. Although they seemed unenthusiastic about accessing online application for healthy eating information, they had indicated that they used the internet on their own to search for general pregnancy information. This suggests that BAIP women might be inclined to access online information and applications if the advice is more relatable. Face to face advice could be complemented with online applications with relatable culturally adapted information. There are however current limitations in terms of allocated times for antenatal meetings as suggested in this study. Recognizing that there is an increase in the use of internet and mobile phone applications for health-related needs, women might be sensitised towards the usefulness of evidence-based information on the internet whilst complementing with face-to-face support. For instance, pregnant women could be given culturally adapted healthy eating information during antenatal meetings including how food portions for popular cultural foods are calculated. Subsequently they could be asked to access evidence-based internet sites or applications for more information to complement the information they have received.

7.5.4 Recommendation four: development of a healthy eating guide using co-construction and community based participatory approach

Studies such as Siega-Riz et al. (2020) and Ochieng et al. (2021) suggest that healthy eating interventions whether in pregnancy or not should consider components of race, ethnicity, degree of acculturation, and socioeconomic measures that could influence the outcomes of the interventions. Additionally, Ochieng et al. (2021) has shown that healthy eating guideline that is co-constructed with the members of the ethnic group has shown more success. It is therefore important to consider the involvement of women from Black and other minority ethnic groups in the co-construction of a culturally suitable healthy eating guideline.

Furthermore, some women in this study have acknowledged the inadequacies of their traditional diet. In the process, they have sought for help to make their diet better. Future research can focus on exploring ways to cook healthier versions of the Black African traditional diets. It is also important for the community to improve knowledge, seek partnership, advocacy, and engagement in the construction of healthy eating guidelines that is healthy and would suit their cultural preferences.

7.5.5 Recommendation five: prioritise healthy eating within the NHS

Midwives in this study suggested that healthy eating advice was not a priority in the NHS especially with the time allocated for antenatal advice. With the rising statistics of obesity and other metabolic and chronic illnesses, in addition to the adverse effects of unhealthy eating especially for the mother and child, healthy eating advice should be at the forefront of all messages in the NHS. This recommendation is useful for policy makers especially.

7.5.6 Recommendation six: improve cultural competence, sensitivity, and safety in antenatal services

Insights from this study shows that engagement was improved if women met midwives that they could relate with or whom they could form a rapport with, whether black or Caucasian. Interviews with some midwives revealed stereotypes and biases that seemed to impede service provision which should be acknowledged. It is therefore important that cultural awareness, cultural competence, sensitivity, and safety trainings be incorporated to enhance midwives' ability to successfully engage with BAIP women. These trainings would also help to challenges biases and stereotypes within the system.

7.5.7 Recommendation seven: community interventions involving the women's social support

This study shows that social support especially from family and friends is an integral part of the pregnancy process for BAIP women. Additionally, pregnant women's healthy eating needs were determined by their family. Therefore, healthy eating interventions targeted at this community should take cognisance of the influence of family and friends especially family. Family based interventions might prove to be more suited for this community. Additionally, the reviews carried out as part of this study has shown that there are few healthy eating interventions targeted at this community. It is therefore important to recommend the need for community-based interventions targeted at BAIP women and their families. In developing such interventions, it would prove useful for the community if individuals who would become recipients of the intervention are included as part of the development, design, implementation, and evaluation of the interventions.

7.5.8 Recommendation eight: intersecting identities and the role of midwives

Midwives could research into the role of intersecting identities in determining health care decisions for BAIP women and how best to support these women. A "one-size-fits-all" approach especially in antenatal care would be unsuitable to meet the needs of BAIP women.

7.5.9 Recommendation nine: future recommendation

This study is a qualitative study which generated important findings and theory development. Future research can build on these findings and recommendations by developing a healthy eating resource/tool that could be used to test the theory generated amongst Black women/community. This might assist in adjusting the focus of healthy eating interventions targeted towards this group/community.

7.6 Strengths and Limitations

This section focuses on the study's strengths and limitations. Qualitative research is focused on understanding and explaining the dynamics of social relations and, in the case of constructivist grounded theory, co-constructing the story with the participants. This provides a deeper understanding of the relationships and processes involved in social processes which cannot be explained by numbers and variables (Queirós et al. 2017)

7.6.1 Strengths: The strength of this grounded theory study would be assessed in terms of its originality, significance, usefulness, relevance and credibility (Glaser and Strauss 2017).

1. *Originality*: This study is focused on understanding the context of the problem and is one of the few studies in the UK (to the researcher's knowledge) focused on understanding the complexities involved in receiving and offering healthy eating advice to BAIP women. To the researcher's knowledge, this is the first study in the UK exploring midwives' perspectives on providing healthy eating advice to BAIP women. Snowballing, peer-to-peer recruitment, influential community members and word of mouth were instrumental and successful recruitment techniques for the BAIP population. As discussed in this thesis, these techniques can be useful in improving BAIP women's participation in research.

2. *Significance*: Findings from this study, including the developed theory, have transferability potential to pregnant women with similar sociocultural characteristics to the women in this study. Additionally, this study has developed knowledge concerning recruiting of "hard-to-reach" people for research participation.

3. *Usefulness*: This study provides a useful template for understanding the unique position of BAIP women in the UK and the midwives who provide their care. It also provides a template to understand how midwives can be positioned to offer help. The theory developed can be used as a valuable framework for context-specific, culturally adaptable healthy eating interventions targeted at this group.

4. *Relevance*: This study has and continues to receive feedback through member checking, lectures, conference presentations, workshop facilitations and involvement in the discussions around developing a healthy eating guide in the Trusts interviewed for the study. These indicate the potential relevance of the theory and the study.

5. *Credibility*: There are a variety of approaches to judge the credibility of research findings. Prolonged engagement with the participants world was achieved by PPI engagements and using community gatekeepers including church leaders. The validity of the categorization method (Cutcliffe and McKenna 1999) was enhanced by enlisting the help of the supervisory team which consists of experts in qualitative research to verify the data categorization. This process helped reveal patterns or issues hitherto unrecognised, leading to a more reasoned and complete interpretation of the data and helped to guard against research bias. Memos were also used as audit trails throughout the data collection, interpretation and writing up process leading readers through the process by which the theory emerged. Furthermore, personal influences on the research process and reflections were explicitly stated and written up acknowledging my subjective judgement throughout the research process. Data triangulation methods (Carter et al. 2014) used include

method triangulation by converging information from different sources such as in-depth interviews, FGD and observations. Theory triangulation involved situating the developing theory within wider literature in order to support or refute the developing theory. Additionally, data source triangulation was carried out by interviewing pregnant women and midwives to gain multiple perspectives.

7.6.2 Limitations

1. Convenience sampling of BAIP women and subsequent snowballing may have biased the sample towards pregnant women who were positively inclined towards research participation. Additionally, the lockdown necessitated by the COVID pandemic meant that travelling, especially to Black-dominated communities in London, which might have increased the diversity of the eventual sample, was impossible. This suggests that the findings of this study might not be representative of a varied sample of BAIP women. Considering the importance of prior and continuous engagement with the Black community to gain their trust before requesting research participation, the researcher's position as a PhD researcher may have acted as a barrier to successfully recruiting participants. This is because the PhD journey did not provide the researcher with ample opportunity for proper engagement before the commencement of the research.

2. The systematic reviews captured in Chapter Two included only studies published in English (see sections 1 and 2). This biased the review findings towards studies published in English. The drawback is that the reviews risked missing relevant papers published in other languages and hampered proper comparison of findings for this study. As I would have needed to understand the different languages to properly search for studies in other languages and meanings might be lost in translation, conducting a search for studies not published in English was not considered. This might have left out some studies related to this topic and hamper the comparison of findings of each study.

7.7 Chapter Summary

This chapter presented a discussion of major findings of this study including situating the developed theory within existing literature. In addition, the chapter discussed the implications for practice, recommendations and strength and limitations of the study.

The next chapter will highlight my reflections, contributions of the study to knowledge, dissemination, and thesis conclusion.

Chapter 8

8.1 Introduction

The first section of this chapter considers my reflections during the study process. The second section will discuss the study's contributions to knowledge and dissemination, while the last section will present the thesis conclusion.

8.2 Reflection

In the introduction (see chapter 1, section 1.9), I stated my personal influence on the research. In addition, I stated my chosen methodological stance in chapter 3. CGT was selected to enable an in-depth study of healthy eating within the social context of BAIP women as immigrants in the UK. Retrospectively, I brought with me some preconceptions concerning healthy eating within the UK context. One of such impressions is that individuals are shaped by their environment, interactions and social context and that culture seemed to be context specific. However, my findings in the study showed that although the interactions with the environment had an influence on the women, culture was not necessarily context specific and was a much more gravitating pull. Culture transcended environment and social context. Additionally, there were other influences on healthy eating including but not limited to their ascribed identities as immigrants in the UK. There were also other influences on my research, there was an assumption that because I was a Black African immigrant woman, I would be better able engage effectively and to understand the lived experiences of Black African immigrant women in the UK. I have learnt from these influences that prior engagement with the community might have been more successful. Prior engagement should also include participants being made a part of the research such that they are actively involved in the research process from data collection to the implementation of findings.

Being pregnant in Nigeria and having an experience of underdeveloped healthcare services and unequal doctor-patient relationship, where finances sometimes determine healthcare access caused bias in my thoughts towards BAIP women and the free healthcare treatment in the UK. The assumption was that BAIP women would have better access to healthcare and in this case antenatal healthy eating advice. However, the study findings showed that BAIP women in the UK still experienced unequal healthcare-patient relationship just as women in developing countries. In addition, they experienced biases and unconscious generalizations which further affected their care. These biases have been as a result of my lived experiences and my professional inclinations throughout the years. I have recognised the strengths and limitations of these influences. For instance, experiencing the maternity

care system in Nigeria exposed to me the differences in maternity care between both countries. In addition, prior pregnancy in Nigeria, exposed me to the influence of cultural myths and taboos in pregnancy and how strong the holds can be. I used memo and field notes throughout the research process to avoid bias and reflect on my thought process.

I also reflected on the power relations between interviewer and interviewee especially during my interview with midwives. I reflected on the fact that I come from a culture which hardly questions healthcare providers, recognising that midwives were healthcare providers and as such that might influence my ability to have conversations. Although this seems like a roundabout way to view power relations especially as the literature talks about power relations in terms of the researcher holding an advantageous position. This reflection enabled me to approach the interview process with midwives as a conversation, which I did not need to be afraid of. I worked hard to ensure that my views and experiences were not imposed on midwives or pregnant women. For pregnant women, questions were also approached in conversation style assuring that they were not forced to answer any questions and could decline if they wish to. This made women to be more open about the topics.

Furthermore, feedback from supervisory sessions on transcripts, developing codes and categories contributed to ensuring that my findings reflected participants experiences. I received further feedback from some participants who read their transcripts and indicated that the transcripts captured their stories as told by them. Some participants (pregnant women and midwives) have followed the progress of this study and are keen to see it implemented in practice. CGT is an appropriate methodology for this study as it ensures that there is a fair representation of the experiences of these participants whilst acknowledging my personal and professional influences on the research.

8.3 Contributions to knowledge

This study has made tangible contributions to knowledge as discussed in the next section. Other contributions have been highlighted in section 7.6.1.

However, additionally, the developed theory has identified the need for healthcare practitioners to consider the intersecting identities of Black African Immigrant women and how these influences their healthy eating and antenatal care needs. This would be central to the provision of well-tailored interventions for this group.

8.4 Dissemination

This findings of this study and outcomes generated as a result of this study has been disseminated in various ways. The aim is to generate impact and increase discussions within the midwifery community, academic community, and the general public.

Firstly, two publications have emanated from the study: a blog post/editorial highlighting some findings of the study and an article with the MIDIRS digest poster signalling the importance of research participation for Black women. Secondly, a poster for the systematic review in chapter 2(review 1) was presented at the Federation of European Nutritionist conference in Dublin in 2019. Additionally, review 2 has been prepared for publishing in the Journal of Maternal and Child Nutrition.

Furthermore, this study has prompted discussions about healthy eating guides in Trust A involved in this study and was one of the topics at the Black and Minority Ethnic group (BAME) maternity conference 2020 in the UK. Findings from this study was also presented at the Royal College of Midwives (RCM) conference in 2022. Further discussions regarding the findings have been requested for by the Maternity service users Equality Network and the University of Exeter and will be presented in October 2022.

Additionally, the findings of review 1 and the study have been presented in PGR conferences held at Bournemouth University. It is anticipated that several publications will further emanate from this study.

8.5 Thesis conclusion

This study has revealed the intersecting identities of Black women and how that influences healthy eating needs firstly and antenatal care needs in general. Although, this study set out to explore the uptake of healthy eating advice, findings from this study related to general antenatal care and how that can be improved for BAIP women. A review of literature has identified the increased risk of gestational diabetes, hypertension inherent amongst Black African immigrant women. This is in addition to the rising obesity statistics. Literature has also shown that healthy eating in pregnancy is protective against metabolic diseases and can improve pregnancy outcomes. However, women do not adhere to pregnancy healthy eating recommendations. This study was able to find out that apart from physiologic factors in pregnancy, there were other mitigating factors to receiving healthy eating advice by BAIP women. These factors include but are not limited to the identity of the BAIP woman, navigating a shifting cultural landscape, cultural beliefs, preferences, and cultural unsuitability of the healthy eating guide. The study also found that there was reticence on the part of midwives to offer healthy eating advice due to ascribed identities, lack of engagement, communication barriers and system challenges.

This study was enlightening, as it showed that although it is intuitive to want to pick culture as a reason for non-engagement with healthy eating advice in the UK, interactions with midwives showed that it went beyond culture.

The implication of this is that it would be useful to adopt recommendations highlighted in this study to address the needs of BAIP women including healthy eating and antenatal care needs. Apart from midwives, the academic community and policy makers do need to play their part in ensuring that BAIP women are properly engaged in order to improve health outcomes for this population. This will ensure that interventions fit the need for which they are being designed.

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Appendices

Appendix 1

Table 1 Comparison of FBDG's: showing variations in written dietary recommendations (chapter 1)

Countries	Starchy carbohydrates	Beans, pulses, fish, eggs, meat, and other proteins	Diary and alternatives	Fruits and vegetables	Oils and spreads	Snacks
United Kingdom	Meals are based on potatoes, bread, rice, pasta, or other starchy carbohydrates.	Some portions of beans, pulses, fish, eggs, meat should be eaten. Two portions of fish weekly with one portion being an oily fish	Take some diary and its alternatives.	5 portions of a variety of fruits and vegetables	Eat in small amounts	Eat less often and in small amounts
Benin Republic	No written recommendation	Consume fish frequently. Replace meat and fish with pulses, peanuts, soybeans, soya,	No written recommendation	Eat plenty of vegetables and fruits every day	Limit amount	Carbonated drinks should be had in moderation

		cheese or peas when there is no meat, fish or eggs.				
Kenya	Eat a variety of foods	Eat beans, pulses, lentils, and nuts at least 4 times a week. Eat meat, fish, seafood, poultry and insects at least twice a week.	Drink milk and yoghurt everyday	Eat plenty of green, red, and yellow vegetables with fruits	Use oil in moderation	No recommendation
Namibia	Eat a variety of foods	Eat more fish but eat meat and bean regularly.	No written recommendation	Eat vegetables and fruit everyday	No recommendation	
Nigeria	Wide variety of foods, legumes, roots/tuber	Limit intake of animal foods. consume fish, lean meat and local cheese	No written recommendation	Liberal consumption of fruit and vegetables	No written recommendation	No written recommendation

Seychelles	Eat rice, cassava, roots and tubers as part of a meal	Eat fish at least 5 days a week. Eat pulses at least 4 times a week	No written recommendation	Eat 5 portions of fruits and vegetables	Use sparingly. Limit frying foods to once a week	Use sugary drinks in moderation
Sierra Leone	Starchy foods	Eat beans, lentils, peas, and soya regularly. Eat fish, chicken, lean meat or eggs daily	Milk and yoghurt daily	Plenty of fruits and vegetables everyday	Use sparingly	No written recommendation
South Africa	Eat a variety of starchy foods	Eat fish, chicken, lean meat and eggs every day. Eat beans, lentils, soya, and peas regularly	Milk and yoghurt everyday	Eat plenty of fruits and vegetables	Use sparingly	No written recommendation

Appendix 2

Table 2 SPIDER Framework

Element	Criteria
Sample	Pregnant women 16 years and above
Phenomenon of interest	Pregnant women of any socio-economic status' perspectives of the challenges and facilitators to healthy eating in high and low/middle income countries.
Design	Qualitative studies-focus groups, interviews. Quantitative studies- cross sectional studies, (surveys). Mixed method research – studies with qualitative/quantitative components.
Evaluation	**Qualitative studies:** women's in-depth views/perspectives on the challenges/barriers and facilitators/enablers to healthy eating in pregnancy. **Quantitative studies:** questions in surveys focused on challenges/barriers and facilitators/enablers to healthy eating in pregnancy.
Research type	**Human participants**

Table 3 Inclusion criteria

Element	**Criteria**
Type of study	Qualitative- (focus groups, interviews), quantitative- cross sectional studies AND Mixed methods research
Type of data	**Qualitative studies** in-depth perspectives **Quantitative studies** questions in surveys
Phenomena under study	Challenges and facilitators to healthy eating in pregnancy or healthy gestational weight gain.
Date of study	From inception to 2021
Age of participants	>/= 16 years pregnant women
Language	English
Economy	High income and middle/low income countries
Socioeconomic status	No exclusions

Table 4 Exclusion criteria

Element	Criteria
Type of data	Studies focused on specialized diets in pregnancy will be excluded
Age of participants	< 16 years will be excluded

Table 5 Search string

Search No	Concept	Search string
S1	Women	(MM “women”) OR “women”
S2	Woman	“woman”
S3	Pregnancy	(MM “Expectant mothers”) OR “pregnant”
S4	Perinatal	“perinatal”
S5	Antenatal	“antenatal” OR (MH “prenatal care”
S6	Maternal	“maternal”

S7	Gestation	Gestation
S8	Gestation	“gestation”
S9	S1 OR S2	S1 OR S2
S10	S3 OR S4 OR S5 OR S6 OR S7 OR S8	S3 OR S4 OR S5 OR S6 OR S7 OR S8
S11	Healthy eating	“Healthy eating”
S12	Eating	(MH “Eating”) OR “eat
S13	Nutrition	(MH “Nutrition” OR “nutrition”
S14	Diet	(MH “Diet”) OR “diet”
S15	Food	(MM “Food”) OR “Food”
S16	Feed	“feed”
S17	S11 OR S12 OR S13 OR S14 OR S15 OR S16	S11 OR S12 OR S13 OR S14 OR S15 OR S16
S18	Challenge	“challenge”
S19	Barrier	“barrier”
S20	Obstacle	“obstacle”
S21	Difficulty	“difficulty”
S22	Adhere	“adhere”
S23	Enable	“enable”

S24	S18 OR S19 OR S20 OR S21 OR S22 OR S23	S18 OR S19 OR S20 OR S21 OR S22 OR S23
S25	S9 AND S10	S9 AND S10
S26		(S9 AND S10) AND (S17 AND S24 AND S25)
S27		((S9 AND S10) AND (S17 AND S24 AND S25)) AND (S17 AND S24)
S28		S17 AND S24
S29		S25 AND S28

Table 6 CASP table

	Research aims	**Methodology appropriate**	**Research design**	**Recruitment strategy**	**Data collection method**	**Researcher – participant relationship**	**Ethical issues**	**Data analysis**	**Clear statement of findings**	**Value of research**
Anderson et al 2015	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Begley et al 2002	✓	✓	✓	✓	✓	Not sure	✓	✓	✓	✓
Bezabih et al	✓	✓	✓	✓	✓	Not sure	✓	✓	✓	✓
Chang et al 2015	✓	✓	✓	✓	✓	Not sure	Not sure	✓	✓	✓
Choudhury et al 2011	✓	✓	✓	✓	✓	Not sure	✓	✓	✓	✓

Christian et al 2006	✓	✓	✓	✓	✓	Not sure	Not sure	✓	✓	✓
Ferrari et al 2013	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fletcher et al 2018	✓	✓	✓	✓	✓	✓	Not sure	✓	✓	✓
Goodrich et al 2012	✓	✓	✓	✓	✓	Not sure	✓	✓	✓	✓
Groth et al 2012	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Groth et al 2013	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Groth et al 2016	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hackley et al 2014	✓	✓	✓	✓	✓	Not sure	✓	✓	✓	✓
Herring et al 2012	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hromi-Fiedler et al 2016	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Kim et al 2016	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lakshmi et al 2013	✓	✓	✓	✓	✓	Not sure	Not mention of ethical considerations	Not sure	✓	✓
Lee et al 2018	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Levay et al										
Malek et al 2018	✓	✓	✓	✓	✓	Not sure	✓	✓	✓	✓
O'Brien et al 2017	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Reyes et al 2013	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Tuffery et al 2005	✓	✓	✓	✓	✓	Not sure	Not sure	No	✓	✓
Wennberg et al 2013	✓	✓	✓	✓	✓	Not sure	✓	✓	✓	✓
Wiles 1998	✓	✓	✓	✓	✓	Not sure	No mention of informed consent. Ethical approval obtained.	✓	✓	✓

Table 7 AXIS table

	Bryant et al 2018	Takei et al 2019	Leslie et al 2013	Takimoto et al 2011
Research aims	✓	✓	✓	✓
Appropriate study design	✓	✓	✓	✓
Sample size justification	No	No	No	No
Target population	✓	✓	✓	✓

Sample frame	✓	✓	✓	✓
Sample selection	✓	✓	✓	✓
Non-responders	✓	No	No	No
Measurement validity	Not sure	✓	No	Not sure
Measurement reliability	Not sure	✓	No	Not sure
Statistical methods used to determine significance	No	✓	✓	✓
Overall methods	✓	✓	✓	✓
Basic data	✓	✓	✓	✓
Information on non-responders	No	No	No	No
Internal consistency	✓	✓	✓	✓
Results presentation	✓	✓	✓	✓
Discussions/conclusion	✓	✓	✓	✓
limitations	✓	✓	✓	✓
Funding sources/conflicts of interest	✓	✓	✓	✓
Ethical approval and consent	✓	✓	No	

Table 8 Characteristics of included studies

Author	Location	Study type	Design	Sample size	Recruitment	Data collection/analysis method	Pregnancy stage/BMI	Study aim

Anderson et al 2015	USA	Qualitative	Content analysis	29	Women, Infant & children Centre	Focus groups/	>/=25 w	Facilitators and barriers to healthy eating and GWG among low-income, overweight/obese women.
Begley et al 2002	Australia	Qualitative	Descriptive	90	Antenatal Clinics	Focus groups	Not specified	Barriers to initiating and maintaining dietary change in pregnancy.
Bezabih et al 2018	Ethiopia	Qualitative	Exploratory	6	Community centres	Focus groups	Not specified	Characteristics that limit the uptake of nutrition services during pregnancy.
Bryant et al 2018	Australia	Quantitative	Survey	223	Antenatal clinics	Questionnaire	Not specified	Source of and attitude towards

								antenatal dietary information
Chang et al 2015	USA	Qualitative	Cross sectional	96	WIC sites	Focus groups	BMI 25 and above	Factors influencing stress and healthful lifestyle behaviours during pregnancy.
Choudhury et al 2011	Bangladesh	Qualitative	Exploratory	20	Community	In-depth interviews	Not specified	Exploring maternity care practices in pregnancy
Christian et al 2006	Nepal	Qualitative	Ethnography	38	Community	In-depth interviews	Not specified	Pregnant women's eating beliefs and behaviours
Ferrari et al 2013	USA	Qualitative	Thematic analysis	58	Prenatal clinics	Focus groups	Not specified	Women's experiences with provider advice.

Fletcher et al 2018	USA	Qualitative	Grounded theory	50	Obstetrics clinics	Focus groups	Not specified	The meaning of a healthy pregnancy, weight gain and nutrition to Latinas in the USA
Goodrich et al 2012	USA	Qualitative	Thematic analysis	33	Prenatal clinics	In-depth interviews	25-40	Perceptions of appropriate weight gain, barriers and enablers of healthy eating in pregnancy.
Groth et al 2013	USA	Qualitative	Content analysis	26	WIC centres and prenatal centres	Focus groups	Not specified	Eating patterns in pregnancy for low-income African American women.

Groth et al 2012	USA	Qualitative	Content analysis	26	WIC centres and prenatal clinics	Focus groups	Not specified	Low-income African American women's views on gestational weight gain.
Groth et al 2016	USA	Qualitative	Content analysis	25	Prenatal clinics	Interviews	Not specified	Factors affecting dietary decisions of low-income urban dwelling African American women.
Hackley et al 2014	USA	Mixed method/qualitative	Content analysis	15	Urban health centres	Focus groups	Not specified	Factors affecting healthy eating and exercise in pregnancy
Herring et al 2012	USA	Qualitative	Grounded theory	31	Prenatal care clinics	Focus groups	Not specified	How urban, low-income African Americans perceive weight gain in pregnancy.

Hromi-Fiedler et al 2016	USA	Qualitative	Not specified	45	Women, infant and children centres	Interviews	>25	Fruit and vegetable consumption changes in pregnancy amongst Latina women and factors that influence it.
Kim et al 2016	USA	Qualitative	Descriptive	59	Women, infant and children centres	Focus group	All category	Knowledge, attitude and perception towards weight gain in pregnancy
Lakshmi et al 2013	India	Mixed method		600	Community	Surveys, In-depth interviews, and observations	Not specified	Exploration of food taboos in pregnancy

Lee et al 2018	Australia	Qualitative	Thematic analysis	19	Prenatal clinics	Interviews	Not specified	Nutrition knowledge and its influence on women's dietary behavior
Leslie et al 2013	Scotland	Quantitative	Survey	428	Maternity hospitals	Surveys/ questionnaire	>25	Women's views on weight gain
Levay et al 2013	Bangladesh	Qualitative	Ethnography	12	Slum	Focus group, In-depth interviews, and observations	Not specified	Food experiences of poor urban women in Bangladesh.
Malek et al 2018	Australia	Qualitative	Framework approach	40	Prenatal clinics	Focus groups/interviews	Not specified	Factors motivating supplementation during pregnancy

O'Brien et al 2017	Ireland	Qualitative	Cross sectional	22	Outpatient departments	In-depth interviews	>25	Factors that influence pregnant women's food choice and physical activity
Reyes et al 2013	USA	Qualitative	Grounded theory	21	Prenatal clinics	Interviews		How low-income overweight/obese African American mothers perceive diet quality in pregnancy
Takei et al 2019	Japan	Quantitative	Survey	273	Maternity outpatient clinics	Questionnaire	Not specified	Factors associated with vegetable intake in Japanese women

Takimoto et al 2011	Tokyo, Japan	Quantitative	Cross sectional study	254	Prenatal clinic	Survey	Average - 20.4	Assessing diet behaviour and attitudes in pregnant women.
Tuffery et al 2005	England	Qualitative	Not specified	37	General medical practices	Semi-structured interviews	Not specified	Women's views of dietary barriers in pregnancy.
Wennberg et al 2013	Sweden	Qualitative	Content analysis	23	Antenatal classes	Focus groups	Not specified	Attitudes and experiences of dietary information and advice.

Wiles et al 1998	England	Qualitative	Grounded theory	37	Antenatal clinics/community centres	Interviews	32 mean ages	Perceptions about appropriate weight gain in pregnancy.

Table 9 Ethnic classification of participants

Author	Geographical location	Participant's ethnicity
Anderson et al 2015	USA	Black 14 (48%), white (non-Hispanic) 12(41%), Hispanic 3(10%)
Begley et al 2002	Australia	Australian born women-83. UK born women- 7
Bezabih et al 2018	Ethiopia	Ethiopian women/Black
Bryant et al 2018	Australia	Australian born women
Chang et al 2015	USA	44 (45.8%) African Americans, 52 (54.2%) non-Hispanic whites
Choudhury et al 2011	Bangladesh	Bangladeshi/ South Asians
Christian et al 2006	Nepal	Nepali/ Asians
Ferrari et al 2013	USA	African American=19, Caucasian=14, Latina=25
Fletcher et al 2018	USA	Latinas

Goodrich et al 2012	USA	African American
Groth et al 2013	USA	African American
Groth et al 2012	USA	African American
Groth et al 2016	USA	African American
Hackley et al 2014	USA	Black =12(27.9%), Native American =2(4.7%), Hispanic = 33(76.7%)
Herring et al 2012	USA	African American
Hromi-Fiedler et al 2016	USA	Latinas
Kim et al 2016	USA	White =13, Black =20, Hispanic=26
Lakshmi et al 2013	India	Indians
Lee et al 2018	Australia	Australians =12(63%), other =6(32%)
Leslie et al 2013	Scotland	Not indicated
Levay et al 2013	Bangladesh	Bangladeshi/South Asians

Malek et al 2018	Australia	Australians
O'Brien et al 2017	Ireland	Irish Caucasian
Reyes et al 2013	USA	African American
Takei et al 2019	Japan	Japanese
Takimoto et al 2011	Japan	Japanese
Tuffery et al 2005	England	Not indicated
Wennberg et al 2013	Sweden	Swedish
Wiles et al 1998	England	White

Table 10 Overarching themes and patterns

Knowledge	**Sociocultural**	**Physiology**	**Environment**	**Organizational**	**Control**	**Finances**
Overwhelming and not individualized	Family members advice	Food cravings	Obesogenic	Variation in dietary advice	Emotional coping response	Cost (supplements in pregnancy)

				between countries		
Lack of general nutrition knowledge	Friends' advice	Nausea	Community-convenience of fast-food places	Conflicting dietary advice	Lack of self-efficacy	Healthy foods are expensive
General misunderstanding about what is considered healthy	Lack of social support	Taste and vomiting	Poor access to healthy foods/transportation	Content and design of educational materials		Lack of finances
Lack of cooking skills	Family structure	Lack of appetite	Poor access to health facilities	Non-specific information received from healthcare providers		Low/insufficient income/ food rationing due to low income.
Contradictory information	Food taboos, avoidances, and restrictions. Foods classified as "Hot" and "cold"	Lack of space in the stomach for food	Social media	Dietary advice is often changing		

Avoidance of healthy topic amongst healthcare givers	Cultural preferences	Tastelessness of the iron supplements	Seasonal unavailability of foods	Non-specific weight gain recommendations		
	Excess intake is important for the baby (African Americans)	Perceived taste of healthy foods	Inadequate food supply	Complex dietary guidelines		
	Desire for smaller babies			Poorly equipped health facilities		
	Normative gender roles restricting women's decision-making capacity					
	Being thicker was accepted					
	Social exclusion					

Table 11 CASPS Qualitative assessment (review 2)

Domains	Goodrich et al 2012	Groth et al 2012	Groth et al 2016	Herring et al 2012	Kim et al 2016	Reyes et al 2013	Whitaker et al 2016	Gardweidner et al 2012	Quintanilha et al 2016
1. Was the statement of the aims of the	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

research clear?									
2. Is a qualitative methodology appropriate?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3. Was the research design appropriate to meet the aims of the research?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4. Appropriate recruitment strategy?	-	Yes	Yes	Yes	-	-	Yes	Yes	Yes
5. Appropriate data collection method	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6. Has the relationship between	Yes	Yes	No	Yes	Yes	Yes	-	-	Yes

researcher and participants been considered?									
7. Has ethical issues been taken into consideration	Yes	Consent was implied	Yes	Yes	Yes	Yes	- No consent indicated	Yes	Yes
8. Was there rigorous data analysis?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9. Is there a clear statement of findings?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10. How valuable is the research?	Very valuable	Very valuable	Very valuable	Very valuable	Very valuable	Very valuable	Very valuable	Very valuable	Very valuable

Appendix 3 Data analysis codes

Table 12: An example of an initial coding

Transcript	Initial coding
Interviewer: So, if you were an African that was born or raised here	
Response: if I was an African that was born and raised here, I would be used to the food and I would know more about the nutrient value of the food. The major problem I had was that, not that I didn't know some of their food that was good but the problem again was that I didn't know how to cook them. Like I don't have an understanding of… for example now they say I should eat broccoli, I don't understand if I am just going to boil that and be eating it, you know. Lile how do I make this appealing for me to eat. That was the major	Cultural application of advice left to individual It's different the way we cook

problem I had. I now had to start searching for African food because now you know now let me give you an example, you know now there's a way if you wanna cook beans, sometimes in Africa you can decide to cook potatoes with beans, you can cook yam with beans, you can put plantain in beans. So now that is because I understand how African foods are combined but I don't know how they are combined here. I'm just trying to learn. So it was difficult trying to find out okay what can I cook with cauliflower, what can I cook with broccoli to make it …I didn't have time for all that. I just decided to go with the one I know. You know so that was it .	Culture takes precedence Retaining and eating African foods The food is different Cultural application of advice left to individual

See appendix 6 for further examples

Appendix 4 Analytical and Reflective memos

The concept of identity as a whole has been captured in the data obtained from pregnant women and the midwives. In more ways than one from the first interviews, pregnant women have used statements like “I am a Nigerian”, “tell me how to eat my own food” and focused codes like “the concept of identity” to signify that although they have moved from their own country to another country, they have not lost their identity. There is also an expectation to be treated as being a Nigerian. This expectation did not change regardless of their years of residence in the host country. Pregnant women who had stayed upwards of 15 years in the host country and pregnant women who had just stayed between 1 and 5 years in the host country all expected to be treated in the same way “I am a Nigerian”. There was a strong inclination to want to stick to their food and to their culture. This culture was not just relegated to food culture, there was the culture of keeping the traditional myths and customs of their people especially in pregnancy. it is important to recognise how much this cultural identity meant to the pregnant women. My memo reflections and existing literature evaluations on the influence of cultural beliefs and traditions on an individual as reflected in chapter 4 raised the theoretical sensitivity of the sub-category. Although there were only two women out of the seven that were interviewed that still practised the taboos and myths. Most of the other women indicated that they had practised them in previous pregnancies. The influence of taboos and myths with the thread of fear was seen mostly on women that were primigravida. There is existing literature regarding the influence of taboos and myths in pregnancy on Black women in Sub-Saharan Africa as indicated earlier. However, this area is at its infancy in the United Kingdom with very few studies evaluating the effect of taboos on immigrant women. A recent study by Ngongalah et al 2021 stated that immigrant pregnant women from sub-Saharan Africa that were involved in the study challenged the cultural beliefs/taboos in pregnancy indicating them to be potentially harmful. Although some women in this study challenged the taboos and cultural beliefs, no study has however evaluated the thread of fear that underlies the few women especially in my study that have decided to stick to the taboos even though they have recognised that it might potentially be harmful.

Memo 1 Analytical memo

Connotative meanings associated with healthy eating and the concept of identity

"*Back where I come from being a big person, a big girl, plus size Is like, Oh, you're enjoying life, but I've come to realize when I come to England that is not necessarily mean is a good thing It can really, really be bad thing and I've worked as healthcare assistant, and I've seen the other side of being a big person*".

Participant 4

This concept of eating well as a sign of healthy eating and conversely as a sign of wealth has been highlighted in a previous memo. The connotative meanings of eating well has also been linked to huge portion sizes.

. *This is what we believe, this is what we are used to. We believe if I eat poundo yam I will be full. We don't believe in starters and main meal and desserts. We don't believe in it. I didn't grow up like that. I grew up eating this one giant meal and that's it. I'm not used to eating small small portions of food. I eat my food at a go, and I know okay I'm done. This is my lunch for me it's done. For me, it's breakfast, lunch and then dinner. That's it. I don't believe in starters, what's starters? I didn't grow up like that and me now having to adjust to eating small portions of food, it's going to be very difficult"*

Participant 4

It is important to reflect on this as part of the unique identity of the BAIP woman. It is also important to acknowledge how this can influence the uptake of healthy eating advice and obesity in this population.

Memo 2: Reflective memo

Appendix 5 Study documents

A.) Participant Information sheet midwives

VERSION 4

20/07/2020

Bournemouth University

Barriers and facilitators to the uptake of healthy eating messages by pregnant African immigrants living in the UK: perspectives of women and midwives.

Thank you for taking some time to read this information sheet.

Study Summary:

This study aims to find out pregnant migrant women's views and experiences of healthy eating in pregnancy. It also aims to explore midwives' experiences and views on providing healthy eating advice to migrant African women. By understanding these I hope that services can be reviewed so as to meet women's needs.

To achieve this, I would like to talk to you about your experiences for about an hour or an hour and half at a time at your convenience.

We are hoping that results from this study will help show how healthy eating messages can be adapted to suit the needs of pregnant African migrants living in the UK.

Who can take part in this study?

To take part in the study you need to be: a midwife, working in these study sites.

Do I have to take part?

It is up to you to decide whether or not to take part, before you decide we would like you to understand why the research is being done and what it would involve for you. If you do decide not to take part, this will not affect you in any way. You can withdraw from participation at any time and without giving a reason. If you do withdraw from the study at

any stage, information collected about you during the study may still be used unless you ask for it not to be.

Please take time to read this information sheet carefully. Discuss it with your family, friends and hospital teams if you wish and please ask if anything is not clear or if you would like more information.

What will happen to me if I take part in the study?

If you are interested in participating, the researcher will contact you through a phone call and arrange a skype/zoom/teams meeting at a mutually convenient time. During the meeting, the researcher will

- • Explain the study in full to you.
- • Ask that you sign a digital copy of an informed consent form.
- • Check that you appear eligible to participate in the study
- • If you meet the study criteria, a meeting date will be set for another skype/zoom/teams' interview
- • Ask if you wish to do a focus group discussion (FGD) or a one-to one discussion

At the meeting, the researcher will ask you for some personal details, such as age, education level and how long you have been on the job. The researcher will then discuss your experiences and views with you. It is expected that this discussion will last about one hour to one and a half hours and will be audiotaped (kindly note that only voice recording will be done even though it might be a video call). Information from the recording of this interview will be put into an anonymously written form and the original recording destroyed. No other use will be made of them without your consent. If you wish, this information will be sent to you so that you can either agree or disagree if it reflects what you said. We will be giving a £20 amazon gift voucher as compensation for your time.

What are the possible benefits of taking part?

There are no immediate benefits for those people participating in the project, so we cannot say with any certainty that you will benefit from taking part in this study. This study is conducted to explore how healthy eating messages are being taken in by pregnant African migrant women and how healthy eating messages can be adapted to suit their needs. Thus, you will certainly be helping us answer a question, which might help in directing healthy eating messages in the future.

What are the possible disadvantages and risks of taking part?

No detrimental effects are expected as a result of you taking part in this interview.

Research studies are strictly regulated, and it is important that you fully understand all the implications of your participation. The following sections provide more detailed information, so please read through and contact us if you have any questions.

What if relevant new information becomes available?

If any new information that could affect your participation in the study becomes available, you will be informed. If the study is stopped for any reason, you will be told why.

What if there is a problem?

Distress: If you feel upset or become distressed during the interview, or afterwards, please let the researcher know, she will be happy to discuss anything with you. However, prior to the interview, you will be made aware of a member of the clinical care team, who will also be available to speak with you and help you cope.

Complaints: If you have a concern about any aspect of this study, also speak to someone in the research team who will answer your questions. You will also be referred to professionals within the Hospitals PALS department. NHS complaints can also be diverted to the NHS trust and hospital that you work with.

If you have any complaints regarding the conduct of the study by Bournemouth University, you may contact Professor Vanora Hundley, Deputy Dean for Research & Professional Practice, Faculty of Health and Social Sciences, by email to researchgovernance@bournemouth.ac.uk.

Harm: We don't expect any harm to come to you as a result of participating in this study. If you are harmed and this is due to someone's negligence, then you may have grounds for a legal action for compensation against your NHS Trust but you may have to pay your legal costs.

Safeguarding

This is a confidential interview, and the information is being used for research purposes only. However, if at any time during the interview, there are any concerns from information shared that would lead to you or another person being at significant risk of harm, then the researcher has a duty to break confidentiality.

Will my participation be kept confidential?

All information collected about you during the course of the study will be kept strictly confidential and in accordance with GDPR (General Data Protection Regulation) and the UK Data Protection Act 2018 that govern the processing of personal data.

Bournemouth University is the sponsor for this study based in the United Kingdom. We will be using information from you and your medical records in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. Bournemouth University will keep identifiable information about you until the study is completed.

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally identifiable information possible. You can find out more about how we use your information by contacting James Stevens, Chief Data Officer on researchgovernance@bournemouth.ac.uk.

Any identifying information will be removed from the study data before it is analysed so that you cannot be identified from the data. Your contact details will be stored separately from the de-identified study information on secure password-protected computers, accessible only to authorized members of Bournemouth University. Paper-based information will be stored in in locked filing cabinets housed within secure offices and information kept on computers will be stored securely on a system maintained and password-protected by Bournemouth University.

Bournemouth University will use your contact details to contact you about the research study, for informant feedback and to oversee the quality of the study. The NHS Foundation Trust will pass these details to Bournemouth University. The only people in Bournemouth University who will have access to information that identifies you will be people who need to contact you to schedule a visit, or to audit the data collection process. The people who analyse the information will not be able to identify you and will not be able to find out your name or contact details.

Bournemouth University will keep identifiable information about you until the study is completed. Data collected during the study will be stored for 5 years after the last publication of the research results.

What happens when the research study stops? Will I find out the results?

When every participant has completed the study, we will prepare the study results (this normally takes several months) and send you a summary of the findings. The study results

may be presented at national and international conferences and published in journals, but you will not be identified in any information included in any presentation or publication.

Who is organizing and funding the research?

This is an educational project that is part of a post-graduate research. The study is being conducted by Aniebiet Ekong who is a PhD student at Bournemouth University and supervised by Dr Jaqui-Hewitt Taylor, who is a senior lecturer at Bournemouth University. It is also supervised by Dr Pramod Regmi who is a lecturer in Public Health and Dr Juliet Woods who is a midwife with a particular interest in cross-cultural midwifery practice. The study is sponsored by Bournemouth University.

Who has reviewed this study?

All NHS research is looked at by an independent panel of experts and lay members (a Research Ethics Committee). This study has been reviewed and approved by the HRA/REC whose primary role is to protect and promote the interests of patients and the public in health research. The study has also been reviewed and approved in line with the BU Research Ethics Code of Practice.

Thank you for considering taking part in the study and taking the time to read this information leaflet

B.) Participant Information sheet Pregnant women

VERSION 4

20/07/2020

Barriers and facilitators to the uptake of healthy eating messages by pregnant African immigrants living in the UK: perspectives of women and midwives.

Thank you for taking some time to read this information sheet.

Study Summary:

This study aims to find out pregnant migrant women's views and experiences of healthy eating in pregnancy. It also aims to explore midwives experiences and views on providing healthy eating advice to migrant African women. By understanding these I hope that services can be reviewed so as to meet women's needs.

To achieve this, I would like to talk to you about your experiences for about an hour or an hour and half at a time when you come to an antenatal visit.

We are hoping that results from this study will help show how healthy eating messages can be adapted to suit the needs of pregnant African migrants living in the UK.

Who can take part in this study?

To take part in the study you need to be: Pregnant, an African migrant woman 18 years or above of African ethnicity. You should be living in the UK. You should have no history of any chronic disease that requires dietary management. You should be able to read and communicate in English or pidgin.

Do I have to take part?

It is up to you to decide whether or not to take part, before you decide we would like you to understand why the research is being done and what it would involve for you. If you do decide not to take part, your antenatal care will not be affected in anyway. You can withdraw from participation at any time and without giving a reason. If you do withdraw from the study at any stage, information collected about you during the study may still be used unless you ask for it not to be.

Please take time to read this information sheet carefully. Discuss it with your family, friends, GP or midwife if you wish and please ask if anything is not clear or if you would like more information.

What will happen to me if I take part in the study?

If you are interested in participating, the researcher will contact you through a phone call and arrange an initial skype/zoom/teams meeting at a mutually convenient time. During the meeting, the researcher will

- • Explain the study in full to you.
- • Ask that you sign a digital copy of an informed consent form, which will provide us access to your medical history.
- • Check that you appear eligible to participate in the study.
- • If you meet the study criteria, a meeting date will be set for another Skype/Zoom/Teams interview.

At the meeting, the researcher will ask you for some personal details, such as age, education level and how long you have been in the country. The researcher will then discuss your experiences and views with you. It is expected that this discussion will last about one hour to one and a half hours and will be audiotaped (kindly note that only voice recording will be done even though it might be a video call). Information from the recording of this interview will be put into an anonymously written form and the original recording destroyed. No other use will be made of them without your consent. If you wish, this information will be sent to you so that you can either agree or disagree if it reflects what you said. We will be giving a £20 amazon gift voucher as compensation for your time.

What are the possible benefits of taking part?

There are no immediate benefits for those people participating in the project, so we cannot say with any certainty that you will benefit from taking part in this study. This study is conducted to explore how healthy eating messages are being taken in by pregnant African migrant women and how healthy eating messages can be adapted to suit their needs. Thus, you will certainly be helping us answer a question, which might help in directing healthy eating messages in the future.

What are the possible disadvantages and risks of taking part?

No detrimental effects are expected as a result of you taking part in this interview. There is however a small possibility that some people may find some questions during the interview distressing. As a result you may decide that you may wish to withdraw yourself from the study. If you feel any distress, you will be signposted to clinical services at the hospital to

help you overcome this. We are required to contact your GP for them to refer you to the right service.

Research studies are strictly regulated and it is important that you fully understand all the implications of your participation. The following sections provide more detailed information, so please read through and contact us if you have any questions.

What if relevant new information becomes available?

If any new information that could affect your participation in the study becomes available, you will be informed. If the study is stopped for any reason, you will be told why.

What if there is a problem?

Distress: If you feel upset or become distressed during the interview, or afterwards, please let the researcher know, she will be happy to discuss anything with you. However, prior to the interview, you will be made aware of a member of the clinical care team, who will also be available to speak with you and help you cope.

Complaints: If you have a concern about any aspect of this study, also speak to someone in the research team who will answer your questions. You will also be referred to professionals within the Hospitals PALS department. NHS complaints can also be diverted to the PALS department.

If you have any complaints regarding the conduct of the study by Bournemouth University, you may contact Professor Vanora Hundley, Deputy Dean for Research & Professional Practice, Faculty of Health and Social Sciences, by email to researchgovernance@bournemouth.ac.uk.

Harm: We don't expect any harm to come to you as a result of participating in this study. If you are harmed and this is due to someone's negligence then you may have grounds for a legal action for compensation against your NHS Trust but you may have to pay your legal costs.

Safeguarding

This is a confidential interview and the information is being used for research purposes only. However, if at any time during the interview, there are any concerns from information shared that would lead to you or another person being at significant risk of harm, then the researcher has a duty to break confidentiality.

Will my participation be kept confidential?

All information collected about you during the course of the study will be kept strictly confidential and in accordance with GDPR (General Data Protection Regulation) and the UK Data Protection Act 2018 that govern the processing of personal data.

Bournemouth University is the sponsor for this study based in the United Kingdom. We will be using information from you and your medical records in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. Bournemouth University will keep identifiable information about you until the study is completed.

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible. You can find out more about how we use your information by contacting James Stevens, Chief Data Officer on researchgovernance@bournemouth.ac.uk.

Your medical records will remain within the establishments which usually maintain them (your doctor or local hospital) but may be reviewed by members of the Bournemouth University research team to confirm your eligibility to take part in the study. Any identifying information will be removed from the study data before it is analyzed so that you cannot be identified from the data. Your contact details will be stored separately from the de-identified study information on secure password-protected computers, accessible only to authorized members of Bournemouth University. Paper-based information will be stored in in locked filing cabinets housed within secure offices and information kept on computers will be stored securely on a system maintained and password-protected by Bournemouth University.

Bournemouth University will use your contact details to contact you about the research study, making sure that relevant information about the study is recorded for your care, and to oversee the quality of the study. Individuals from Bournemouth University and regulatory organisations may look at your medical and research records to check the accuracy of the research study. The NHS Foundation Trust will pass these details to Bournemouth University along with the information collected from you and your medical records. The only people in Bournemouth University who will have access to information that identifies you will be people who need to contact you to schedule a visit, or to audit the data collection process. The people who analyse the information will not be able to identify you and will not be able to find out your name, or contact details.

Bournemouth University will keep identifiable information about you until the study is completed. Data collected during the study will be stored for 5 years after the last publication of the research results.

What happens when the research study stops? Will I find out the results?

When every participant has completed the study, we will prepare the study results (this normally takes several months) and send you a summary of the findings. The study results may be presented at national and international conferences and published in journals, but you will not be identified in any information included in any presentation or publication.

Who is organizing and funding the research?

This is an educational project that is part of a post-graduate research. The study is being conducted by Aniebiet Ekong who is a PhD student at Bournemouth University and supervised by Dr Jaqui-Hewitt Taylor, who is a senior lecturer at Bournemouth University. It is also supervised by Dr Pramod Regmi who is a lecturer in International Health and Dr Juliet Woods who is a midwife with a particular interest in cross-cultural midwifery practice. The study is sponsored by Bournemouth University.

Who has reviewed this study?

All NHS research is looked at by an independent panel of experts and lay members (a Research Ethics Committee). This study has been reviewed and approved by the HRA/REC whose primary role is to protect and promote the interests of patients and the public in health research. The study has also been reviewed and approved in line with BU Research Ethics Code of Practice.

Thank you for considering taking part in the study and taking the time to read this information leaflet.

c.) Interview guide for midwives

Thank you for your time.

Please note that this document will guide the interview session. Your responses and elaborations will determine how discussions evolve.

Part 1: Welcome and Introduction

- Researcher introduces self and welcomes interviewee to the interview session

- Researcher explains the purpose of the interview: to explore midwives' perspectives of providing healthy eating advice to pregnant African migrants living in the UK.
- Researcher reminds interviewee that participation is entirely voluntary, and they can withdraw at any stage.
- Researcher requests permission to record the session
- Researcher informs interviewee that she will be taking notes throughout the interview.

Part 2: **Healthy eating advice**

- How do you offer healthy eating advice to pregnant women?
- Have you ever offered healthy eating advice to pregnant Africans?
    - Prompts
        - What approach does this advice take?
        - Is it different from other types of advice you give?
- What form did this advice take?
    - Prompts
        - Booklets, brochures, pamphlets
- Do you offer the same advice to everyone?
- Do you consider the Eatwell guide and pregnancy healthy eating guidelines appropriate to all cultures and social contexts?
- Do you have any other thing to say?

D.) Interview guide for pregnant women

Thank you for your time.

Please note that this document will guide the interview session. Your responses and elaborations will determine how discussions evolve.

Part 1: Welcome and Introduction

- Moderator introduces self and welcomes interviewee to the interview session
- Moderator explains the purpose of the interview: to explore the perception (understanding, interpretation) around healthy eating for pregnant African migrants (18 years and above) living in the UK.
- Moderator reminds interviewee that participation is entirely voluntary, and they can withdraw at any stage.
- Moderator requests permission to record the session
- Moderator informs interviewee that she will be taking notes throughout the interview.

Part 2: Perception of healthy eating

- What is your understanding about the term “being healthy”?
- What can you say is your current understanding of the term “healthy eating”?

Part 3: Eating habit in pregnancy

- Would you say you’re eating habit has changed since being pregnant?
- What would you say has caused the change in eating habit?
- Are there other things that have caused changes to your eating habits?

Part 3: Healthy eating advice/guidelines

National Institute of Health and Care Excellence (NICE) 2015, maternal and child nutrition guidelines state that pregnant women attending antenatal and healthy visitor appointments are given advice on how to eat healthily. With this in mind:

- What kind of healthy eating advice have you been offered before?
- What form did the advice take?
- How useful was this advice to you?
- Are there any aspects of the Information that have caused you to make changes to your eating practices?
- How helpful/relevant was this advice for you personally?
    - Probe
        - Culture

        - Social context
        - Beliefs

- What do you consider important to you when choosing a meal?
    - Probe
        - Distance
        - Time
        - Culture
        - Taste/ personal preference
        - Availability
        - Finance
- Could you explain a bit more on any of the options that you picked from the question above?
- What other sources of healthy eating or nutrition advice have you used in pregnancy?
    - Probe
        - Social media (Instagram, Facebook, pregnancy blogs)
        - Friends
        - Family
        - Internet (google and other search engines)
- What sources do you regard as the most trusted and relevant source of healthy eating advice?
- What are your thoughts about the eat-well guide or healthy eating guide in pregnancy?
    - Probe (moderator hands out a copy of the eat-well guide)
- Do these guides influence you at all?
- What do you perceive are the risks and consequences of a.) Unhealthy eating

  b. Obesity

c. Weight retention

Part 4: Barriers and Facilitators

- In your opinion, what do you think are your barriers to healthy eating?
- What do you think would encourages you to eat healthy?

Part 5: Rounding up

- Would you like to say anything else?

E.) Consent form midwives

VERSION 2

09/09/2019

IRAS ID: 268646

Study Number: NCT04009395

Participant Identification Number:

CONSENT FORM

Title of Project: Barriers and facilitators to the uptake of healthy eating messages by Pregnant African immigrants living in the UK: perspectives of women and midwives.

Name of Researcher: Aniebiet Ekong

Please initial box

1. I confirm that I have read the information sheet dated 09/09/2019 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected. ☐
3. I am aware that the interview sessions will be audio-recorded in order to facilitate data collection. I also understand that quotes from the audio-recordings will be used anonymously and will not Include my name or other personal information. ☐
4. I understand that the information collected about me may be used to support other research in the future, and may be shared anonymously with other researchers. This is **Optional**, kindly leave blank if you do not want your information used in future research. ☐
5. I agree to provide the research team with my socio-demographic details in the form of a questionnaire, I understand that these details will be stored in a secure cabinet in Bournemouth University and Access will be restricted. ☐
6. I agree to provide the research team with my contact details such as email and telephone number. I understand these details will be kept by the researcher for the duration of the study, after which they will be destroyed ☐
7. I understand that the information held and maintained by the trust(to which this hospital belongs) May be used to help contact me. ☐

When completed: 1 for participant; 1 for researcher site file; 1 to be kept in medical notes.

F.) Consent forms pregnant women

VERSION 2

09/09/2019

IRAS ID: 268646

Study Number: NCT04009395

Participant Identification Number:

CONSENT FORM

Title of Project: Barriers and facilitators to the uptake of healthy eating messages by Pregnant African immigrants living in the UK: perspectives of women and midwives.

Name of Researcher: Aniebiet Ekong

Please initial box

1. I confirm that I have read the information sheet dated 09/09/2019 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected. ☐
3. I understand that relevant sections of my medical notes and data collected during the study may be looked at by individuals from Bournemouth University, from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records. ☐
4. I understand that relevant sections of my medical notes/records may be looked into by the Researcher to obtain information which may be used to further exclude me from the study ☐
5. I am aware that the interview sessions will be audio-recorded in order to facilitate data collection. I also understand that quotes from the audio-recordings will be used anonymously and will not Include my name or other personal information. ☐
6. I understand that the information collected about me may be used to support other research in the future, and may be shared anonymously with other researchers. This is **optional**. Kindly leave blank if you do not want your information used in future research. ☐
7. I agree to my General Practitioner being involved in the study, including any necessary exchange of information about me between my GP and the research team. ☐
8. I agree to provide the research team with my socio-demographic details in the form of a questionnaire, I understand that these details will be stored in a secure cabinet in Bournemouth University and Access will be restricted. ☐

When completed: 1 for participant; 1 for researcher site file; 1 to be kept in medical notes.

Appendix 6 Categories

An example of midwives' category formation

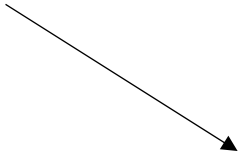
Category A- **Addressing cultural needs**

- They want to retain their African foods.
- They are interested if its not generic

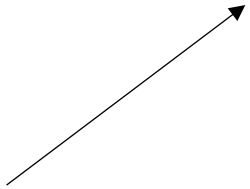
- Healthy eating advice should be tailored.

Addressing cultural needs

Acknowledging cultural needs



- The advice is generic
- Its frustrating, there is no information about their food.
- Cultural needs are not accounted for.
- Not culturally suitable



Recognising gaps in the system

Category A developed during the coding and analysis of data gathered during the initial interviews. Initial codes that frequently occurred during the interviews addressed the frustration that the midwife felt when they tried to obtain culturally specific information for black African women. Quotes like “its frustrating, there is no information about their food”, “they want to retain their African food”, and “they need information specific to them. In response to the suitability of the eatwell guide for these women, quotes like “not culturally suitable” were used. It became important for the researcher to enquire more about the views of others. It is important to note that culture as a theme has come up during the analysis in different contexts, this first category addresses cultural needs in terms of food.

Category A was constructed on the following focused codes

Category A: Addressing cultural needs

- They want to retain their African food
- Cultural needs are not accounted for
- It’s frustrating, there is no information about their food
- Not culturally suitable
- The advice is generic

- Healthy eating advice should be tailored
- They are interested if it is not generic

Subsequent categories were developed as analysis of data continued and theoretical sampling was used to provide links and fill gaps.

Category B: Improving Engagement: Referring to how midwives viewed engagement with African women, what the barriers were and how it could be improved.

- Black women are difficult to engage
- They are not accepting-they just nod and do what they like
- They do not ask for it so they are not offered help
- They do not want to be told
- They will always do like they've always done
- Being more relatable improved engagement
- Engagement is improved when people spoke their language
- Managing engagement by improving representation
- Managing engagements through similar groups representation
- You need a good relationship with them to have meaningful discussions.

Category C: Managing the system: restrictions within the system that served as barriers to offering care to immigrant women.

- They have a difficulty accessing resources

- There are budgets and restrictions
- There is no time
- They ask us to do more but don’t add the time
- No room for individualized care
- Lack of resources to accommodate immigrant women
- Healthy eating is not a priority
- The importance of healthy eating should be emphasized
- We need to drip feed the information
- Healthy eating should be like vaccinations

Category D: Understanding cultural dynamics – perceptions of behaviours and cultural inclinations that served as a barrier to asking for and offering care. On the part of midwives, conscious and unconscious behaviours and thought processes that served as barriers to delivering care.

- Increasing discussions about diversity
- Increasing discussions about food diversity
- It’s the culture
- African women are laid back
- Lack of knowledge about food diversity
- Understanding cultural dynamics

- They see eating well as being healthy
- Their mothers are a huge influence
- The culture does not question things
- Mothers as barriers to care
- Being unbothered is a cultural thing
- Antenatal care is not valued
- Our advice conflicts with their support system

Category F: Communication barriers

- It’s difficult to develop relationships due to language constraints
- We have the responsibility to improve understanding
- We are unsure of their understanding
- Unless they tell me
- They say one thing and mean another
- English understanding differs
- English is not a communication barrier

- Educated Caucasian women are the easiest to talk to

Category G: The need for knowledge: knowledge gaps identified by midwives and ways to improve.

- Midwives lack knowledge about risks and consequences
- Midwives lacking knowledge about healthy eating guidelines
- The need for research
- The expectation is that they have adopted the western culture
- Black women need to change their diet
- They are lucky to receive the care they've received.
- Increasing discussions about diversity
- Increasing discussions about food diversity

Category H: Healthy eating discussions are hard: referring to the difficulties midwives had in speaking about healthy eating.

- Fear of admitting to having a problem with healthy eating
- I have a large BMI, talking about healthy eating is hypocritical
- People generally know what constitutes a healthy diet
- Based on the assumption that everyone understands what healthy eating is

- BMI discussions is labelling

Category I: Suitability of the healthy eating guide

- The guide is not suitable for people with no recourse to public funds
- Eating healthy is expensive
- Finance is a barrier to healthy eating
- Not suitable for the social context
- Not culturally suitable

COVID 19 and its effect on care

- Follow-up pressure is now on women
- Healthy eating conversations cannot happen over the phone

Appendix 7: Approvals

NHS
Health Research Authority
London - Brent Research Ethics Committee
80 London Road
Skipton House
London
SE1 6LH

Telephone: 0207 104 8241

Please note: This is the favourable opinion of the REC only and does not allow you to start your study at NHS sites in England until you receive HRA Approval

04 November 2019

Dr Jaqui Hewitt-Taylor
R119, Royal London House
Faculty of Health and Social Sciences
Bournemouth University
BH1 3LT

Dear Dr Hewitt-Taylor

Study title:	**Barriers and facilitators to the uptake of healthy eating messages by pregnant African immigrants living in the UK: perspectives of women and midwives.**
REC reference:	**19/LO/1308**
IRAS project ID:	**268646**

Thank you for your letter of 29 October 2019, responding to the Proportionate Review Sub-Committee's request for changes to the documentation for the above study.

The revised documentation has been reviewed and approved on behalf of the PR sub-committee.

Confirmation of Ethical Opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

Conditions of the Favourable Opinion

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

NHS
Health Research Authority

Dr Jacqui Hewitt-Taylor
R119, Royal London House
Faculty of Health and Social Sciences
Bournemouth University
BH1 3LT

Email: hra.approval@nhs.net

21 November 2019

Dear Dr Hewitt-Taylor

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title:	**Barriers and facilitators to the uptake of healthy eating messages by pregnant African immigrants living in the UK: perspectives of women and midwives.**
IRAS project ID:	**268646**
REC reference:	**19/LO/1308**
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.

Appendix 8: Published paper

Midwifery & Education

Barriers and facilitators to the recruitment of Black African women for research in the UK: hard to engage and not hard to reach

Aniebiet I Ekong, Nurudeen Adesina, Jaqui Hewitt-Taylor, Pramod Regmi, Fotini Tsofliou, Juliet Wood

ORIGINAL

Introduction

Recent Maternal, Newborn and Infant Clinical Outcome Review Programme (MBRRACE-UK) reports between 2018 and 2019 have highlighted the inequalities in health faced by Black African women living in the UK (Knight et al 2018, Knight et al 2019). The 2019 report showed that Black African women were four times more likely to die in pregnancy from all causes when compared to their White counterparts (Knight et al 2019). Black women also have the highest risks of developing complications in pregnancy including, but not limited to, gestational diabetes and hypertension (Roberts & Cooper 2001, Urquia et al 2012, Khalil et al 2013, Webster et al 2019). However, representation from this group has been found to be small or lacking in life-saving research (Godden et al 2010, Smart et al 2017, Nelson et al 2021).

Existing frameworks and guidelines on health and social care research in the UK highlight the importance of bridging the gap of disparity in health outcomes (Jackson-Cole 2019). One of the ways that this can be achieved is through encouraging research that involves diverse ethnic and racial minorities. Adequate ethnic representation in health care research not only enhances generalisability of study findings but also provides guidance for health policymakers in a diversified population like the UK (Mattocks & Briscoe-Palmer 2016). Arday & Union (2017) have argued that effective participation of Black, Asian and minority ethnic groups in evidence-based research will foster improved health outcomes in the UK (Arday & Union 2017).

To reduce maternal mortality among Black women, improvement is needed in health research representation, access and interventions uptake. Several reasons have been postulated for the lack of representation, including problems with access and recruitment, which has led some researchers to label these groups as 'hard to reach', 'difficult to access/engage' or 'unwilling to participate in research' (Shavers et al 2001, Ellard-Gray et al 2015, Esegbona-Adeigbe 2020). However, emerging evidence, especially from the United States of America (USA) where there is a large population of Black Africans, have shown that methods used for the recruitment of other ethnic groups do not suffice for the Black ethnic group (Andrasik et al 2021). Such literature, especially with regard to the engagement of Black African women, is lacking in the UK.

Two of the researchers involved in the present studies self-identify as Black African immigrants living in the United Kingdom (UK). This methods paper provides a snapshot of some of the challenges encountered during the recruitment of pregnant Black African women living in the UK for health research. It is believed that an insight into the experience and perceptions of Black and minority ethnic researchers will enhance pragmatic strategies and increase future participation and retention of Black African women across different areas of health and social care research (Arday & Union 2017).

Aims

This methods paper aims to:

- Present an ethnic-specific perspective of first-hand experience of the difficulties of recruitment to provide a greater understanding of the problem
- Identify barriers and facilitators to the recruitment of Black African Women to research
- Report strategies that have been used to successfully recruit Black African women in the UK in qualitative and cross-sectional studies.