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A mixed methods exploration of the lived experience of pre-addiction and long-term recovery

by

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Abstract

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Addiction is a complex issue within society. On-line gambling, gaming, internet and phone addiction have been cited in the media in recent years alongside addictions to drugs, alcohol and eating disorders. Although these phenomena are all addressed and treated separately, they are referred to under the same heading of addictions. Further, there is still no way to determine who might become an addict, or how best to help people with addiction problems to recover.

This thesis will look at how addicts view their addiction and recovery from their current perspective. It aims to answer the following questions: 1) Is it possible to identify commonalities across differing addictions in the area of affect (feeling, thought, belief) regardless of addiction or gender? 2) Although addictions are studied separately, is there evidence of addictions being either concurrent or consecutive for an individual? 3)Does life improve with length of time in recovery? 4) How might findings from these studies be used to help progress the field of study for addiction?

For these questions to be answered a mixed method approach was used. Study 1 used thematic analysis on existing secondary data sources. The data sources selected were the main reference books from Overeaters Anonymous (OA), Alcoholics Anonymous (AA) and Narcotics Anonymous (NA), The data was selected from sections of these books which contain essays from individuals in recovery recounting their addiction and recovery journey.

For study 2 a quantitative approach was selected using online questionnaires asking participants to recall their lives prior to or at the beginning of their addiction and their lives today in recovery. Participants were required to be in recovery from one or more addiction(s) and be a minimum of 18 years old.

The research showed that there are large areas of overlap of affect between addictions, regardless of addiction or gender, that multiple addictions are common for an individual and that life experience does improve with time in different domains, reducing in later life in line with general population norms.

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Contents

Chapter 1: Introduction to researcher's position

The researcher is a female ex-heroin addict who has experienced long term recovery without lapse (35 years to date). She currently works in the field of addiction and has done so for 32 years with the organisation StreetScene. She still attends self-help groups for recovery from addiction on average once a quarter, less frequently than in the first 5 years since quitting heroin. She has observed the path of many addicts with various addictions as they move from addiction to recovery. Through work alone, this totals over 2500 individuals up to June 2023. From these observations and her own experience, she has drawn certain conclusions: People who suffer from addiction come from all socio-economic and ethnic backgrounds found generally in the UK. It affects both genders and people of all sexual orientations. This is in accordance with the theories of the 12 step fellowships, for whom addiction is an allergy to alcohol (Wilson 1976) or a disease of mind, body and spirit, (Narcotics Anonymous 2008). The age at presentation to treatment or self-help groups ranges from late teens to early seventies. The rate of obvious childhood abuse of any kind is higher than would be expected in the general population but is not universal, this is in line with the theories of addiction where it is related to abuse (Banducci et al., 2014), or aversive childhood events (Mc Elroy and Hevey 2014). The point at which an individual seeks help varies between individuals, ranging from seeking help at a point where an individual has become homeless, unemployed and without external support to seeking help whilst still in employment, with a home and with significant support from both family and friends.

The similarities between this disparate group of people are in the areas of feelings, thoughts and beliefs. For Abraham Twerski the problem of addiction is in the style of thinking used by addicts (Twerski 1997). He suggests various methods of self-deception for enabling a person to continue to use, which enables them to cover up their emotional problems that are at the heart of addiction. In effect according to Twerski, addicts deceive themselves. Twerski does address the question of which comes first, the thinking or the addiction, however as far as he is concerned this is irrelevant when looking for recovery (Twerski 1997). According to David Nutt addiction includes many facets, including genetic, social and inherited all interacting with one another to produce an addiction (Nutt and Nestor 2013). From this perspective addiction could be a disease, or self deception.

Despite the differences there appears to be a consistency of feelings, thoughts and beliefs around life and the individual's place in it. From observation, addiction appears to occur in individuals who have experienced circumstances, changes or challenges during their life that they were unable to overcome using their internal resources or their external support, resulting in a negative change in their perceptions of themselves and / or of life and their environment. This may be a single event or multiple events, small or large, intentional or unintentional, but this negative change results in the individual experiencing increasing amounts of internal dissonance without perceiving the possibility of relief. Concurrent to this

the individual becomes aware of an activity that alters their mood; alcohol, drugs, food, gambling and so on. This substance or activity takes away the dissonance temporarily, but shortly after the dissonance returns. If no other source of relief seems possible the likelihood is that the individual will seek out this activity repeatedly to relieve distress. This view is closely aligned to the theories of Gabor Maté (Maté 2018) who believes that addiction is the result of individuals attempting to deal with the emotional pain caused by trauma, either capital T trauma, such as abuse, violence etc, or little t trauma, which can be caused by all manner of things that are considered normal. One example of this used by Maté is the idea of leaving small children to cry themselves to sleep rather than continually going to give reassurance by picking them up. there is a reluctance on the part of the researcher to refer to everything as a trauma, either with a capital T or a small t.

This does not necessarily mean that everyone who uses drugs or drinks alcohol or uses certain behaviours will become an addict. The difference is around the reason behind the individual's choice and the need this activity is meeting. If the activity is undertaken to enable an individual to feel more able to cope with life or feel better about themselves or their circumstances or escape from any one of these, then there could be an addiction issue.

Initially with all addictive activities there is a period where the activity undertaken provides the maximum of relief for the minimum of consequences, however over time the amount of resources expended, either in money, time or both, will need to increase to gain the same level of mood alteration and the consequences grow. Until the time comes when continuing to alter their mood in this way becomes futile and / or the consequences become unavoidable or intolerable this behaviour is likely to continue. At some point the consequences of the behaviour will become unavoidable, such as health issues or financial insolvency. This does not automatically mean a cessation in using as addicts often continue to use, supporting their habit through unlawful means, until the option is removed, such as imprisonment, hospitalisation or death. The point where consequences are unavoidable is the point when an addict is said to reach 'rock bottom'. The researcher's own observations would suggest that the term 'rock bottom' is unhelpful and can deter individuals from seeking help sooner, believing that they have not yet reached this point. A more helpful term could be 'a moment of clarity' as the concept of that time when an addict understands the necessity of change.

The events that start an addiction are individual, as are the experiences during addiction and arriving at the point at which an addict decides to change, which aligns with the theories of Gabor Maté where each person experiences life events, either big T or little t traumas differently, and it is this internal experience that underlies addiction and is unique to each person (Maté 2018).

The points of similarity are around the thoughts, feelings and beliefs of the addict during the entire addiction process. The researcher's observed evidence for this comes from working in

the treatment field and finding that greatly disparate groups of individuals come together and find an abundance of similarities in these areas, often resulting in long term friendships. It is these similarities that bind the self-help groups together and provide the working group in a treatment setting.

None of the circumstances or changes an addicted person experiences are unique to addiction, neither are the resultant feelings, thoughts or beliefs. Addiction itself appears to be a human behaviour used to ease a life experienced as unacceptable without the possibility of change, only temporary escape. This idea is more closely aligned to the theories of Bruce Alexander (Alexander 2008). For Alexander drugs do not cause addiction but the social context does, with individuals feeling increasingly isolated as societies unravel, marriages fail more often, communities' fragment, children have less parental guidance, families are becoming increasingly stressed, there is less trust between strangers and so on. With these pressures people seek out behaviours and substances to use to self sooth. This theory is based on the early work on Rat Park, detailed in the literature review below. Its consequences however can be dire to the individual, the family and society and as such it needs to be addressed.

Further observation leads the researcher to the opinion that the Folk Psychological idea of 'once an addict always an addict' is taken by society to mean that that a person who has been an addict will always be in some way disadvantaged in life. Based on the researcher's observations and experience, she would suggest that if an addict honestly commits to sustained change by whatever means, they can achieve a life that suits their individuality. This raises the question as to whether the researcher believes the disease model or not. In truth, the categorisation of addiction is only important to the extent that definition helps or hinders people in escaping from it. For Orford, due to the diversity of substances and behaviours an individual can become addicted to there is no meaning in trying to understand addiction in terms of differences in brain chemistry as everything an human does has a correlate in the brain, (Moss and Dyer 2010) implying that there is no way to tell categorically which is the driver and which the result. Does the unusual brain chemistry cause the thinking that leads to addiction or does the thinking cause a change in brain chemistry that results in addictive behaviour.

Part of this research is to explore this view. Any support for this view may have implications for the way addiction is viewed and treated, moving away from life circumstances and events and towards an individual's experience of life, away from the theories of Alexander and towards the theories of Maté (Alexander 2008; Maté 2018)

The researcher believes that the stigmatization of people with any addiction is unhelpful to everyone, especially those who need to seek help, and would hope that work in this area might be helpful in reducing this. She is particularly interested in the way addiction appears to be evolving as the number of potentially addictive activities has grown with the widespread

availability of the internet and the use of psychological techniques to induce people to spend more time online. She has no political position regarding decriminalisation or legalisation of drugs, being aware that every approach has both positive and negative attributes as well as unintended consequences, and because it is not the substances themselves that are the problem.

One final point to raise at the beginning of this thesis is that I can still remember the first time I was told I had a disease called addiction. The feeling of relief was overwhelming, there was nothing wrong with me a such, I had a disease, and it wasn't my fault. I could stop searching and blaming myself and everyone else for my predicament. I hope the changes in dialogue around addiction can give the same sense of relief to other.

Chapter 2, Literature review: introduction to addiction theory, self-help and treatment

Introduction

This literature review will begin with a review of the scale of the problem of substance addiction in the UK, the various definitions of addiction and related theories. It will then explore the situation of the self-help groups, treatment of addiction in the UK and natural recovery. The area of previous research will be explored to identify possible insights into precursors of various addictions looking specifically for the internal experiences of sufferers of addiction. Finally, there will be a summary and identification of any gaps in the literature.

Methodology

This literature review utilises a narrative approach to produce an overview of various aspects of addiction, giving a clear background to the following research. It aims to provide a summary of literature highlighting the problems of addiction from societal, theoretical, practical and personal perspectives, highlighting potential gaps in current understanding that can be explored to provide further insights into the manifestation of addiction.

Initially relevant literature was defined as studies that included data on the thoughts, feelings and beliefs of addicts. Various searches were undertaken, from the databases: PsychInfo, PubMed, Web of Science and Wiley Online Library including the words 'addiction', 'addict', 'feeling', 'thoughts', 'beliefs', 'recovery', 'emotion', 'affect', in various combinations with 'AND' and 'OR'. The only study relating to the internal experiences of addicts identified (Hibbert & Best, 2011) explored experiences of former problem drinkers at different stages of their recovery journeys. This study indicated significant improvements in physical and psychological health, social relations and environment as assessed by the WHOQoL Bref questionnaire. In particular, scores for the domains 'social relations' and 'environment' were significantly higher than published norms for participants classed as 'in stable recovery' (5 years or more) (Hibbert and Best 2011). Although this study tells us little about feelings, thoughts and beliefs prior to addiction it does indicate significant improvements in these areas between early recovery and stable recovery, suggesting that recovery is a process rather than an event and that perceived quality of life can continue to increase over time.

Following this, the search for relevant literature was expanded to identify any research into the underlying causes of addiction. The combination of search terms that produced the most relevant results for this research included the terms: 'addiction', 'emotion' and 'qualitative'. Duplicates were removed, as were any studies where the focus was not related to possible causes for addiction or were not in English. Additional papers were identified by searching the previous work of authors of identified papers, a backward search of the references in these papers, recommendations received from supervisors or professionals working in the

field of addiction and examiners involved in the viva. All the ‘Anonymous’ fellowships, such as Alcoholics Anonymous, Narcotics Anonymous and Overeaters Anonymous produce literature referred to as 12 Step literature, which is freely available online, was accessed as part of this research. Data relating to the legal framework for treatment of addiction in the UK was accessed via the Public Health England (PHE), the Care Quality Commission (CQC) and the Office for National Statistics and National Charities working in the field. Theories relating to alternative viewpoints on addiction were sourced from the researcher’s own knowledge and recommendations from other experts, either in academia or professionals in the field of addiction.

The problem of substance addiction

Questions around the nature of addiction and the comparison between addictions have been a topic of interest for decades however to understand the impact of addiction on society it is important to consider the facts and figures of addiction related harm. Addiction influences government policies in health, policing and treatment provision. It has a negative impact on individuals, families and societies throughout the world. For example, in the UK in 2016 2,593 deaths were attributed to drug misuse (Barber et al. 2017), which increased to 3,060 in 2021 (Office for National Statistics, 2022).

The 2016 figures were the highest number of deaths since records began in 1993. with male mortality rising sharply (Barber et al. 2017). Drug misuse issues are said to affect an average of 1.9 people per 100,000, with some significant variations such as Blackpool with 14.0 per 100,000 (ONS 2018a). The cost of drug misuse was £15.4 billion in 2014 in the UK, which included: healthcare (8%) enforcement (10%) deaths (28%) and crime (54%). In 2015/16, 288,843 people contacted services in search of help or support with drug addiction (Barber et al. 2017)

There were 7,327 alcohol specific deaths in the UK in 2016, making a rate of 11.7 deaths per 100,000 (ONS 2018b). This rose to 7,565 in 2019 (Deaths 2021) However, this does not include any categories of death partially attributable to alcohol. For example, alcohol impacts the innate and acquired immune system, making the problem drinker more susceptible to infections (Rehm et al. 2017). The cost of this to the NHS is around £3.5 billion per annum with around 595,131 dependant drinkers in the UK (Alcohol Concern 2016).Deaths from alcohol and drugs rose during the covid years of 2020 to 2022 according to the office for n National Sataistics , however these figures are skewed by the lockdowns experienced in the UK. (Office for National Statistics 2022)

These figures do not show how many individuals suffer from addiction but do not seek help from any statutory source, either finding ways to address their problems themselves or simply attending self-help groups.

Regarding drug misuse there is an estimate of 1.5 million people affected by someone else's addiction, with the cost of harm to these people estimated as £1.8 billion per year. (Barber et al. 2017). The negative emotional impact of addiction is not easily quantifiable.

Definitions of addiction

Within the 12 step self-help fellowships there is no definition of addiction beyond an acceptance that members are addicts and that addiction is an incurable disease of the body, mind and spirit (Narcotics Anonymous 2008). In this way, the fellowships do not become enmeshed in discussion around the definition or conceptualisation of addiction and can focus on how to overcome it. Although the 12 step self-help groups are defined as following the disease model of addiction it is left to the individual to decide how they wish to interpret this. From the researcher's experience, many choose to call addiction a 'dis-ease' meaning simply a lack of ease affecting body, mind and spirit.

In the UK, it is from the disease or medical model that much of the current treatment system grew, although today in the UK treatment delivery is guided by the Care Quality Commission, National Institute for Clinical Excellence, Public Health England and the current government's Drug Strategy. It is more common for the Primary Health Care sector to be concerned with the definition. The lack of consensus around a single definition might be the reason for the variations today in addiction services across the UK, whilst 12 step treatment remains relatively standard.

In the sciences, addiction and the theories surrounding it appear to have become a catch-all for certain patterns of problematic behaviour, generally related to the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), Substance Use Disorder's 11 criteria, namely:

- Using more than intended
- Unsuccessful desire to stop or cut down
- Amount of time spent getting, using and recovering
- Craving
- Using causes failure to fulfil major obligations
- Continuing to use despite social or interpersonal consequences
- Important activities stopped or reduced because of using
- Using where it is physically hazardous
- Continuing to use despite physical or psychological consequences
- Tolerance
- Withdrawal (American Psychiatric Association 2013) P483

Based on recent evidence, the DSM-5 included gambling disorder as it stimulates the reward system of the brain and it can "produce some behavioural symptoms that appear comparable to those produced by substance use disorders." (American Psychiatric Association 2013).

Other behavioural addictions are still not included due to insufficient evidence and eating disorders are listed separately.

Alternatively, according to the ICD-11 the diagnostic criteria are:

- Impaired control over substance use - in terms of the onset, level, circumstances, or termination of use.
- Often but not necessarily accompanied by a subjective sensation of urge or craving to use the substance
- Substance use becomes an increasing priority in life such that its use takes precedence over
- other interests or enjoyments, daily activities, responsibilities, or health or personal care
- Substance use often continues despite the occurrence of problems
- With physiological features as manifested by (i) tolerance, (ii) withdrawal
- symptoms following cessation or reduction in the use of that substance, or (iii) repeated
- use of the substance to prevent or alleviate withdrawal symptoms (Basu and Ghosh 2018)

Although these two definitions have items in common such as using more than intended and unsuccessful desire to stop or cut down (DMS-5) and impaired control (ICD-11), there are differences; In the ICD-11 substances of abuse are grouped into the same category, withdrawal is not an essential part of dependence but a separate condition, and there is no mention of using in hazardous situations. The DSM-5 does not mention a strong desire to use, only an unsuccessful desire to stop or cut down and it does not explicitly cover various substances or multiple substances.

On 18th June 2018 '6C51 gaming disorder' was included as a mental health condition in 'Disorders due to addictive behaviours' in the 11th version of the ICD, putting it alongside 'C650 gambling disorder' (World Health Organisation 2018). The definition of gaming disorder is:

> 'a pattern of persistent or recurrent gaming behaviour ('digital gaming' or 'video-gaming'), which may be online (i.e., over the internet) or offline, manifested by: 1) impaired control over gaming (e.g., onset, frequency, intensity, duration, termination, context); 2) increasing priority given to gaming to the extent that gaming takes precedence over other life interests and daily activities; and 3) continuation or escalation of gaming despite the occurrence of negative consequences. The behaviour pattern is of sufficient severity to result in significant impairment in personal, family, social, educational, occupational or other important areas of functioning. The pattern of gaming behaviour may be continuous or episodic and recurrent. The gaming behaviour and other features are normally evident over a period of at least 12 months in order for a diagnosis to be assigned, although the required duration may be shortened if all diagnostic requirements are met and symptoms are severe.'(World Health Organisation 2018) Online access

The similarity of meaning, if not of language between gaming disorder and substance addiction is evident:

- Gaming disorder has impaired control, substance misuse has difficulty in controlling use;
- Gaming has an increased priority, substance misuse has a higher priority;
- Gaming has a continuous escalation despite consequences, substances has is persistence in use despite consequences,
- Gaming has is significant impairment, substances have harmful consequences.

Gaming disorder is not included in the DSM. With both ICD and DSM there is a recognition of similarities between substance addiction and behavioural addiction. With the DSM this is in a recognition of the similarity of functioning of the brain reward system, whereas with ICD it is around similarities in behaviour.

These changes have opened the debate around what constitutes addiction. In its original form addiction did not relate to substances but to enslavement, although in recent times the two have become synonymous (Potenza 2014). It is due to its original meaning that both the DMS-5 and ICD -11 have begun to enlarge their sections related to behavioural addictions.

Behavioural addiction itself currently has no consensus around definition. Clarification is currently being discussed in order to avoid pathologizing certain behaviours unnecessarily under an Open Science Foundation framework. The current working definition is:

> ‘A repeated behaviour leading to significant harm or distress. The behaviour is not reduced by the person and persists over a significant period of time. The harm or distress is of a functionally impairing nature’. (Kardefelt-Winther et al. 2017)

This definition includes various exclusions: the behaviour is not better explained by an alternative disorder, the harm is not the result of wilful choice such as high level sport, the behaviour does not lead to significant functional impairment or distress, (Kardefelt-Winther et al. 2017). A fourth exclusion has been amended to: the behaviour is not the result of a temporary coping strategy as an expected response to common stressors or losses (Billieux et al. 2017).

Despite the differences the common theme throughout all these definitions is that they concentrate on defining symptoms only. No mention is made of causes, whether individual or societal.

Theories of Addiction

Unlike definitions, theories of addiction try to tackle the question of cause or causes.

In discussing theories, it is important to note that the term ‘behaviour’ is used in two ways, either the repeated ingestion of a substance or repetitive behaviours. The former can result

in both a psychological and physical addiction whereas the latter can only result in a psychological addiction.

> "The implication here is that addictive behaviour comprises psychological dependence which can be long lasting and difficult to treat, and physical dependence, which represents physical neuroadaptation, is often short term and is somewhat easier to treat." (Moss and Dyer 2010)

During rehabilitation the detox period for drugs and alcohol can be anywhere from 1 to 2 weeks for the physical dependence. This may be extended for more complex cases, including where a client needs to detox from alcohol and drugs or from prescription drugs. However, treatment programmes vary in length from 4 weeks to 6 months, time which is used to address the manifestations of psychological dependence. The length of time in treatment depends largely on available funding rather than assessment of clinical need, however simply detoxing individuals is shown to be insufficient to cause cessation of addiction and generally leads to relapse. (NIDA 2020, July 10)

Lindesmith (1938) held that the difference between addicts and non-addicts was the use of opiates to stave off withdrawal. He compared samples of conscious opiate use and unconscious opiate use (such as may be seen in a hospital environment) and found that conscious opiate users recognised withdrawal as a lack of opiate whereas those who had been administered opiate in a medical setting did not recognise the cause of their discomfort and did not become addicted. From this he established the idea of addiction as being a social process consisting of reflecting on the cause of discomfort and acting to alleviate it. It demonstrated that people have a relationship with their drug use that cannot be reduced to the pharmacological effects only but is a psychological and sociological phenomenon in need of treatment rather than punishment (Maher and Dertadian 2018). This view is also held by Maté (Maté 2018)

The first person in modern times to describe alcoholism as a disease was Dr Silkworth in 1939, in an open letter to Bill Wilson, the founder of Alcoholics Anonymous (Wilson and Alcoholics Anonymous 2013). This letter is still included in the introduction to the Alcoholics Anonymous book under the title 'The Doctors Opinion'. He likened alcoholism to an allergy suffered by alcoholics to alcohol (Wilson and Alcoholics Anonymous 2013).

The start of the 'disease concept' for addiction generally was Jellinek in his 1960 book 'The disease concept of alcoholism', the main symptom being loss of control (Moss and Dyer 2010). Taking this further, Leshner (2000) put forward the view that addiction is a disease of the brain because all forms of chemical addiction cause functional and structural changes in the reward pathways of the brain. He argued that due to these changes addiction could be conceptualised as a disease and that there is a heritable genetic component to addiction (Leshner 2000). There is emerging evidence that genetics may play an important role in alcohol dependence (e.g. Brewer & Potenza, 2008; Prescott & Kendler 1999) as studies

have highlighted a family risk element (Moss and Dyer 2010). The self-help groups have their own variety of the disease concept; "We suffer from a disease that expresses itself in ways that are anti-social and that make detection, diagnosis and treatment difficult." (Narcotics Anonymous 2008). In Overeaters Anonymous it states, ", we learned that we were in the clutches of a dangerous illness," (Overeaters-Anonymous 2014).

According to the American Society of Addiction Medicine;

> ' Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviours that become compulsive and often continue despite harmful consequences. Prevention efforts and treatment approaches for addiction are generally as successful as those for other chronic diseases.'(American Society for Addiction Medicine 2019).

It has been suggested that addiction is not properly defined and that a definition might enable the concept to work more effectively, keeping the benefits of enabling the addict to own a problem and seek help without the implication of moral weakness (Skog 2000). Skog goes on to say that addicts do not lose their ability to choose, but choose according to their current mental capacity (Skog 2000). There are critics of the disease concept who hold the view that this labelling is disempowering to the addict, making them victims of their disease who must rely on the help of others to recover (Moss and Dyer 2010). In relation to the brain chemistry argument McLeod (2002) pointed out that everything humans do has a neurochemical correlate (Moss and Dyer 2010). Research evidence of neuroadaptations in current addicts does not indicate whether these adaptations are pre or post addiction and potentially causal or occur as a result of the addiction. Further, without evidence of individuals post addiction, it is not possible to state if these neuroadaptations diminish or revert in stable recovery. Lewis (2017) argues that addiction is not a disease as the brain changes observed in addiction are similar to those seen in highly motivated goal seeking behaviour making addiction a developmental issue rather than a disease (Lewis 2017). All these theories rely on the underlying assumption that the problem lies with the individual. Whilst this is true in one sense, in that the individual addict is suffering and requires help, according to Gabor Maté and Bruce Alexander the actual problem lies at a societal level, and the individual's addition is merely a way of dealing with the pain of living in a seriously dysfunctional society which is failing to provide ways for individuals to meet their human needs (Alexander 2008; Maté 2018; Maté 2022).

According to Gabor Maté, addiction has three parts. First, the person engages in an addictive substance or behaviour to find temporary pleasure and/or relief from pain whose roots lie in personal experiences of wounding. This gives rise to craving to repeat the activity, be that behavioural or substance related and finally the person is unable to stop despite negative consequences (Maté 2018; Maté 2022). According to Bruce Alexander, addiction is the result

of societal dislocation and is seen in cultures that are not working for the individual by destroying the things that give meaning to existence, removing social connection and responsibility. As evidence Alexander quotes the experiences of Native Americans, who only became addicted to alcohol after their culture had been destroyed by the Europeans. Currently this dislocation is especially true within western cultures. The fragmentation of society leads individuals to feel dislocated, isolated and seek relief. This can be found in various behaviours and substances. Treatment works for the individual but does nothing for the escalating problem, The solution is therefore at a societal level and for Alexander there is hope as society changes due to the necessity to change to save the planet, for new groups and cultures to form to meet this necessity. (Alexander 2008).

For Maté, addiction is the result of unresolved childhood trauma. He is clear that in this case he is not only referring to trauma with a capital T for example sexual abuse or violence, but also trauma with a small t for example having parents who are emotionally unavailable to the child, or too stressed to provide the care and support the child needs. These events in a child's life cause emotional wounds and trauma is the result of trying to deal with the wounds. This is extremely painful for the individual and at some point relief is sought. (Maté 2018). This redefines addiction not as a disease, but as a solution to the problem of intolerable pain, which in the end becomes a bigger issue (Maté 2018). The main difference between the two theories is in relation to trauma. Alexander does not feel that trauma is at the root of everything. Although he recognises the roles of trauma in the lives of addicts, for him the root cause is the intense stress of modern life. He also feels that the addiction crisis will not end until there is a major shift within society (Alexander 2008). Maté, on the other hand, feels that addiction is the result of seeking a solution to unresolved pain.(Maté 2018)

In 1969, Preble and Casey carried out extensive research into the life of heroin addicts, immersing themselves in the social and economic world of addicts. They found that contrary to the view of addicts as amoral, psychologically impaired, physically inert, impulsive and unable to delay gratification, in low-income communities, heroin use provided an adventurous and rewarding lifestyle. The addicts were engaged in meaningful activity, pursuing a career that was challenging where they needed to be alert, flexible and resourceful with using being a minimal activity taking up only a small percentage of each day. Here heroin gave meaning to life rather than an escape from it (Maher and Dertadian 2018). It could be argued that although this idea is radical and counter-intuitive, it may partially explain why people become involved in the drug culture and the social needs it might meet for the individual. This possibly links to the arguments of Maté and Alexander who argue that isolation and dislocation are at the root of the problem (Alexander 2008; Maté 2022).

The behaviourist school of psychology has various theories that relate to the acquisition and building of an addiction, specifically operant conditioning which can be demonstrated in the acquisition and maintaining of an addictive behaviour. Positive conditioning can be

demonstrated in the way an addict will receive large boosts to the rewards system at the beginning of an addiction motivating repeated use, and negative conditioning can be seen later in addiction when an addict continues to use to avoid negative feelings such as withdrawal or facing reality (Moss and Dyer 2010; Treisman and Clark 2011). Another factor in operant conditioning is that of punishment, whereby a behaviour is discouraged when a punishment is involved. With addiction the existence of punishments for continued use seems obvious. However, because they are not contiguous, with some punishments appearing to be in the distant future, as opposed to the possibility of virtually instant relief, the punishments are not effective in reducing the addictive behaviour (Moss and Dyer 2010). Drug use as a learned behaviour was evidenced in 1963 by H.S. Becker who identified interactive learning experiences between novice and experienced drug users through social interactions, illustrating how society labelled drug users as outsiders and how this was fundamental in the development of the drug sub-culture (Maher and Dertadian 2018). This idea was further expanded by Zinberg in 1983 by explaining drug use as the framed experiences of the drug user produced by an interaction of the effect of the drug, the user's psychology and the environmental context rather than pharmacology and pathology (Maher and Dertadian 2018).

The best known research within the behaviourist school concerning addiction is that of 'Rat Park', conducted by Bruce Alexander in the 1970's which, through altering the rats' environment from isolated in a cage to enriched environments, demonstrated that environment played a role in addiction over and above simple availability (Gage and Sumnall 2018). In earlier experiments, isolated rats would self-administer morphine in water and routinely did this until they overdosed. However, in Rat Park the rats' using profile was significantly altered. Rats were provided with an enriched environment including mazes and social areas and put into the environment in groups rather than alone. Water and morphine consumption was measured through light sensors being triggered when rats entered the water station enabling pictures to be taken to identify the rats and accurate measurement of the number of drops taken. This method found a significant reduction in self-administered morphine, with rats preferring the pure water over the water-morphine combination on a significant number of occasions. These experiments were criticised as the methods for recording information on consumption differed between isolated rats and the colony. Isolated rats had water bottles that were measured, and allowance made for evaporation and drop loss, however in the colony measurement had increased accuracy, with cameras to identify individual rats and liquid only being released when the light beam was broken. Further as the colony consisted of males and females there were inevitably rat pups, an event which alters a female rat's behaviour and needs. No information was given on the protocol for rat pups. A final point is that no allowance was made for a hierarchy within the colony, which would lead to differing behaviour of dominant individuals. However, these experiments did change the conversation around addiction from the simple acquisition of an addiction through classical

conditioning to a focus on outside influences (Gage and Sumnall 2018). Alexander later rejected the idea of an enslaving drug and disease model based on exposure, believing the root of addiction is around 'psychosocial dislocation', citing the difference in behaviour between the rats in the Skinner cages and the rats in "rat park" as evidence (Alexander and Schweighofer 1988; Jordan and Butler 2011).

Following Rat Park there has subsequently been research into the utility of operant conditioning in treatment settings with 55 studies published between 1991 and 2005 using operant conditioning on targeted behaviours, e.g. a reduction of cocaine use in methadone users (Silverman 2004). Evidence suggests that these have generally not been effective but could be a useful tool in certain specific circumstances with targeted behaviours (Silverman, 2004), one example being a 12 week study by Silverman et al. (Silverman et al. 2019). Here participants on methadone prescription who were still using cocaine were recruited after 5 weeks on their prescriptions. Half the participants were encouraged to remain cocaine abstinent in exchange for vouchers, and evidence was collected from urine samples taken at regular intervals. The value of the vouchers increased in value as the number of clean samples increased. Failure to produce a sample or a positive urine sample meant that no voucher was given and when the next clean sample was given the participant would only receive the original value. The control group received no vouchers. In the first group the length of abstinence achieved during the 12 week trial was between 7 and 12 weeks with voucher's totalling a maximum of $1,155 for producing 3 cocaine free sampled per week for the whole 12 weeks. In the control group the longest abstinence was 2 weeks. Details on length of follow up and numbers remaining abstinent were not given in the study. (Silverman et al. 2019).

In America the original Rat Park experiments coincided with return of soldiers from Vietnam. In 1971 there was great concern about the potential increase in the domestic heroin problem resulting from soldiers returning from Vietnam, where it was claimed that 10 – 15% of soldiers were addicted (Hall and Weier 2017). With 200,000 soldiers returning there was concern that the treatment system would be overwhelmed. To tackle this all soldiers were screened for heroin and those who tested positive were delayed by 2 weeks and detoxed with no other sanctions. This led to a study conducted by Lee Robins with two cohorts of 450 returning soldiers, one a random sample and the other consisting of men who had tested positive for heroin (Hall and Weier 2017). Of the 450 random group 43% reported opiate use in Vietnam with around 20% experiencing withdrawal at some point indicating the scale of drug use whilst in Vietnam. Of the veterans who had tested positive for opiates, 95% were re-interviewed 8 – 12 months later with only 10% reporting any heroin use, 2% reporting use more than weekly and only 1% reporting becoming re-addicted (Hall and Weier 2017). The men most likely to recommence using had used opiates before Vietnam, were from large cities, were less well educated and had family histories of delinquency, crime and drug use

(Hall and Weier 2017). This low rate of addiction was unexpected, but the findings lent credence to the ideas around heroin addiction being rooted in environment rather than by exposure alone, similar to the Rat Park findings (Gage and Sumnall, 2018).

Attachment theory is often cited in relation to addiction. It is claimed that addicts and alcoholics have insecure attachment styles resulting in an inability to internalise the experience of a healthy relationship resulting in a switch to a psychoactive substance to provide a replacement, providing feelings of being cared for and soothed (Wojtynkiewicz 2016). This idea also relates to Maté's theories that insecure attachments produce traumatic wounds which cause pain that the individual seeks to relieve (Maté 2018). It is claimed that secure attachment at a young age to a caregiver is connected to effective emotional regulation and insecure attachment to ineffective emotional regulation (Wojtynkiewicz 2016). It has been suggested that attachment is especially important for individuals with poly drug use issues, above those whose addiction is to a single substance (Hiebler-Ragger and Unterrainer 2019). With emotional regulation often being cited as a finding in studies of addiction, attachment may have a role to play as insecure attachments are a vulnerability. However a single vulnerability is not sufficient in itself to produce an addiction (Hiebler-Ragger and Unterrainer 2019).

A review of theories of hyper- and hypo-sensitivity of brain reward systems in relation to substance dependence described addiction as a multifaceted problem that has been associated with depression, anxiety, thrill-seeking, risk-taking, incentive sensitization and reward deficiency (Murphy et al. 2012). These attributes have been well established in quantitative research of addiction and relate to participants in active addiction. However, it could be suggested that these findings should be treated with caution as it is possible they may be subject to the propter hoc fallacy in that such attributes may be associated with using addicts but do not indicate causality (Lewis 2017).

Manifestations of addiction

Craving

Addiction as manifest through craving is a core issue from the original Alcoholics Anonymous (Wilson and Alcoholics Anonymous 2013) and also a key element for Maté (Maté 2018), Craving is a time when the individual is consciously aware of the demands of the body. A related sociological idea is that of the dys-appearing body (where dys is used as meaning bad or difficult). According to Drew Leder in his 1990 book 'The Absent Body', we are generally unaware of our physical bodies, only taking notice when they come into our consciousness, demanding attention through pain or discomfort, either physical or emotional (Nettleton et al. 2011). A review of qualitative interview data concerning the embodied habits of heroin addicts and recovering addicts revealed that the daily habits of a using addict were simple though endless (Nettleton et al. 2011). In NA literature these daily habits are referred to as: 'We lived to use and used to live.' (Narcotics Anonymous 2008). The demands for

dealing with the dys-appearing body were great and all focussed towards ensuring the body 'disappeared' from consciousness, was kept numbed by the use of drugs, (Nettleton et al. 2011; Independent Expert Working Group 2017) or as NA puts it ' We wanted an easy way out' (Narcotics Anonymous 2008). In contrast, the needs of the dys-appearing body in recovery became much more complex, including all the necessities for daily life such as dealing with routines, taking care of the body, emotions and social interactions. (Nettleton et al. 2011). It could be speculated that this transition from a simple to a complex existence, where many of the habits to be developed are new and many of the experiences to be coped with are difficult, makes the process of recovery more difficult and may go some way to theoretically explaining the duration of addiction, lapse and craving post detox. As NA puts it 'Many of us cling to our fears, doubts, self-loathing, or hatred because there is a certain distorted security in familiar pain. It seems safer to embrace what we know than to let go of it for the unknown.' (Narcotics Anonymous 2008).

Denial

Denial is often cited in addiction as a reason why addicts do not address the problem sooner (Flores 2004; Jampolsky 2008) and can be perceived as resistance to change and a coping strategy. If reality is denied, then the addict can continue as they are. On the other hand, committing to the reality of the situation may mean change is needed, which would be difficult and painful (Twerski 1997) with recovery only being initiated when the perceived pain of recovering is seen as less than the perceived pain of continuing to use. According to Twerski (1997) addiction and thinking are correlated. On the outside addictive thinking can appear logical, however it can be misleading. Addicts can be taken in by their own thinking, deceiving themselves. (Twerski 1997) This can be evidenced in the rationales that addicts give in relation to their addiction, such as:

> "Drinking released me from the suffocating fear, the feelings of inadequacy, and the nagging voices at the back of my head that told me I would never measure up. All those things melted away when I drank. The bottle was my friend, my companion, a portable vacation." (Wilson and Alcoholics Anonymous 2013)

Here the self-deception is that the individual sees his alcohol use as the solution to his problems rather than a problem itself. This relates directly to the current investigation around thoughts, feelings and beliefs in that fear, feeling inadequate and believing he would never 'measure up' are all of potential interest.

Summary of theories

It is clear there are many theories relating to addiction, for example: disease concept, behaviourist, social learning, attachment, coping, environmental and societal. Addiction being enslaving and addiction being a choice. Addiction being rewarding and addiction as a method of dealing with emotional pain and so on. It could be argued that what this does is

highlight the idea that addiction is a complex issue with many ways to understand it. Further it could be argued that in trying to encapsulate addiction into one theory the essence of the problem is obscured. For the researcher there is a significant issue here, the difference between addiction on a micro scale and on a macro scale. Whilst defining addiction as a societal human problem it is vital not to lose sight of the individual who is suffering today and how to provide support for them and help them to escape addiction when they are ready. Potentially, in looking for a new way to understand addiction, it could be argued that engaging with people who have recovered from addiction for a significant period of time may yield new information.

The Self-Help Movement

Possibly one outcome of this growing problem has been the emergence of the self-help movement as people struggle with their addictions. The most common type of self-help in the area of addiction are the '12 step fellowships', the earliest being Alcoholics Anonymous dating from the 1930's (Wilson 1976). All recognised 'Anonymous' fellowships have their roots in Alcoholics Anonymous and have the same 12 steps and 12 traditions underpinning them (Narcotics Anonymous 2008; Overeaters-Anonymous 2014). The 12 steps are a suggested program for personal recovery and the 12 traditions are the principles that guide the fellowship and meetings.

The 12 steps of Alcoholics Anonymous are:

1. We admitted we were powerless over alcohol - that our lives had become unmanageable.
2. Came to believe that a Power greater than ourselves could restore us to sanity.
3. Made a decision to turn our will and our lives over to the care of God as we understood Him.
4. Made a searching and fearless moral inventory of ourselves.
5. Admitted to God, to ourselves and to another human being the exact nature of our wrongs.
6. Were entirely ready to have God remove all these defects of character.
7. Humbly asked Him to remove our shortcomings.
8. Made a list of all persons we had harmed and became willing to make amends to them all.
9. Made direct amends to such people wherever possible, except when to do so would injure them or others.
10. Continued to take personal inventory and when we were wrong promptly admitted it.

11. Sought through prayer and meditation to improve our conscious contact with God as we understood Him, praying only for knowledge of His will for us and the power to carry that out.
12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics and to practice these principles in all our affairs. (https://www.alcoholics-anonymous.org.uk/About-AA/The-12-Steps-of-AA)

The main difference between all the fellowships is the wording of two of the steps listed above. Step 1, 'we admitted we were powerless over _____ - that or life had become unmanageable', and step 12, 'having had a spiritual awakening as a result of these steps, we tried to carry this message to _____, and practice these principles in all our affairs'. Examples of the words inserted into this blanks include; 'alcohol' and 'alcoholics' (Alcoholics Anonymous 2018) , 'our addiction' and 'addicts'(Narcotics Anonymous 2008), 'food' and 'compulsive overeaters' (Overeaters Anonymous 2018), 'debt' and 'compulsive debtors' (Debtors Anonymous 2009-2018), 'lust' and 'sexaholics' (Sexaholics Anonymous 1997-2018), 'others' and 'other co-dependents' (CoDA 2011-2013). 'Gamblers' and 'compulsive gamblers' (Gamblers Anonymous 1999),'clutter' and 'others' (Cluterers Anonymous 2018) 'gaming addiction' and 'gaming addicts' (Computer Gaming Addicts Anonymous 2016), It is noteworthy that in none of the fellowships relating to behavioural addiction is the word addict used in the 12 steps, only in programs relating to substances of addiction.

In 1939 the first edition of the Alcoholics Anonymous (AA) Book was printed, (Wilson and Alcoholics Anonymous 2013). The AA book, colloquially referred to as the Big Book, is the basic textbook for all members. It contains the history of AA, how it was founded, the 12 steps and 12 traditions with a description of each, background information on alcoholism, information for concerned others such as wives, families and employers and personal stories. Starting with the founders, more recent stories have been added with each new edition up to 2012 when the 4th edition was finalised. Other fellowships have a basic text specific to their addiction based on the Big Book. For Narcotics Anonymous (NA) it is colloquially called the Basic Text (Narcotics Anonymous 2008) and for Overeaters Anonymous (OA) The Brown Book (Overeaters-Anonymous 2014) . Other fellowships use the AA Big book as their basic textbook such as Cocaine Anonymous (CA). Each 12 step fellowship develops its own supporting literature over time, such as pamphlets and books which are always based on the philosophy of the Big Book of AA but specific to their issue. The Big Book (AA), the Basic Text (NA) and the Brown Book (OA) are the best established 12 step textbooks. AA has meetings in 180 countries including countries where the use of alcohol is banned, NA in 144 countries and OA in 24 countries. An observable difference between the books is that both AA and OA have a western emphasis on the stories they include whereas NA has included stories from many different countries and cultures in its most recent edition.

In the AA Big Book Dr William D. Silkworth described alcoholism as an allergy, where 'the body of the alcoholic is quite as abnormal as his mind' (Wilson and Alcoholics Anonymous 2013),'The Doctors opinion' Pages. xxv-xxxii.) The belief behind this statement is that craving was the driving force behind chronic alcoholism, and this was exclusive to alcoholics, never experienced by temperate drinkers. Carl Jung in his letter to Bill Wilson in 1961 expressed the view that craving was akin to a desire for wholeness (Jung, 1961). He believed that the ills of society along with this unmet need are what lead people into the hell of addiction, the solution being human community and / or higher education of the mind. Jung pointed out that the word for alcohol 'spiritus' and spirituality in Latin 'spiritus' come from the same source (Jung 1961). This idea continued with Narcotics Anonymous, when their first basic text (The Basic Text) was produced in 1982, 'We follow the same path (as Alcoholics Anonymous), with a single exception, our identification as addicts is all-inclusive with respect to any mood-changing, mind-altering substance.'(Narcotics Anonymous 2008). Overeaters Anonymous follow the same basic original belief 'This book would not be possible without our great preceptor, Alcoholics Anonymous.' (Overeaters-Anonymous 2014). These and all other Anonymous fellowships appear to have been successful in the lives of many hundreds of thousands of addicts. Their 12-step program and fellowship seem to be both effective and successful for those who engage with it and address the elements referred to by Carl Jung as having a vital spiritual experience (Wilson and Alcoholics Anonymous 2013)

The statistics on success rates as a percentage of those who enter a fellowship meeting is contested, with newspapers claiming anything from 5% to 75% (American Addiction Centres 2018). A range of reasons have been speculated for this variation of estimates. Not everyone who attends meetings will return, especially if they have been coerced, and because the fellowships are anonymous the collection of accurate data is difficult (American Addiction Centres 2018). There is mounting evidence that the 12 step fellowships are effective in alleviating addiction (Blonigen et al. 2009; Tusa and Burgholzer 2013; Pisani 2019), but there is also evidence of reluctance to engage with the 12 step fellowships because of their 'spiritual' nature (Best 2017; Pisani 2019). There is little evidence of the success rate of the 12 step fellowships as a percentage of attendance except from the fellowships themselves. This may be because it would be extremely difficult to access this data in a reliable fashion. In the Big Book of AA in the 1950's, Bill Wilson wrote that:

> 'Of alcoholics who came to A.A and really tried, 50% got sober at once and remained that way, 25% sobered up after some relapses, and among the remainder, those who stayed with A.A showed improvement. Other thousands came to a few A.A. meetings and at first decided that they didn't want the program. But a great number of these – about two out of three – began to return as time passed.' (Wilson and Alcoholics Anonymous 2013)

Alcoholics Anonymous carry out a survey of members every few years. The most recently released results, published in 2014, were derived from 6,000 members, randomly selected from the USA and Canada. Various data points were collected including clean time data (Alcoholics Anonymous 2014). The results are shown in Figure 1.

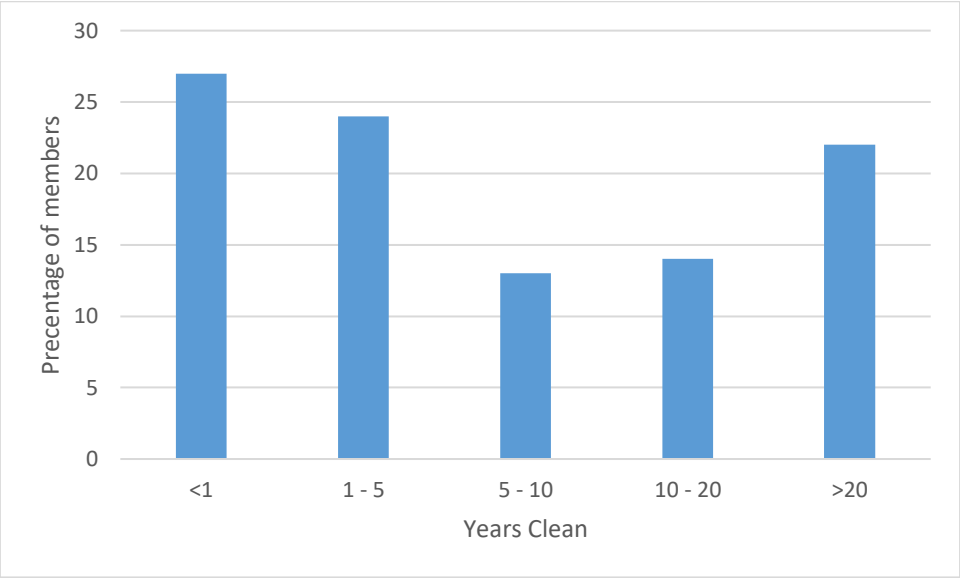

Figure 1: Length of clean time of surveyed members of Alcoholics Anonymous 2014

Data taken from the Alcoholics Anonymous Membership Survey 2014 (Alcoholics Anonymous 2014)

Narcotics Anonymous has conducted a similar survey since 1996. In 2015 they released a demographic survey at their World Convention, which was available online for 6 months for any member to complete. There were 22,803 respondents with an average sobriety of 8.32 years (Narcotics Anonymous 2015). Figure 2 shows percentage of members of NA and length of clean time in years:

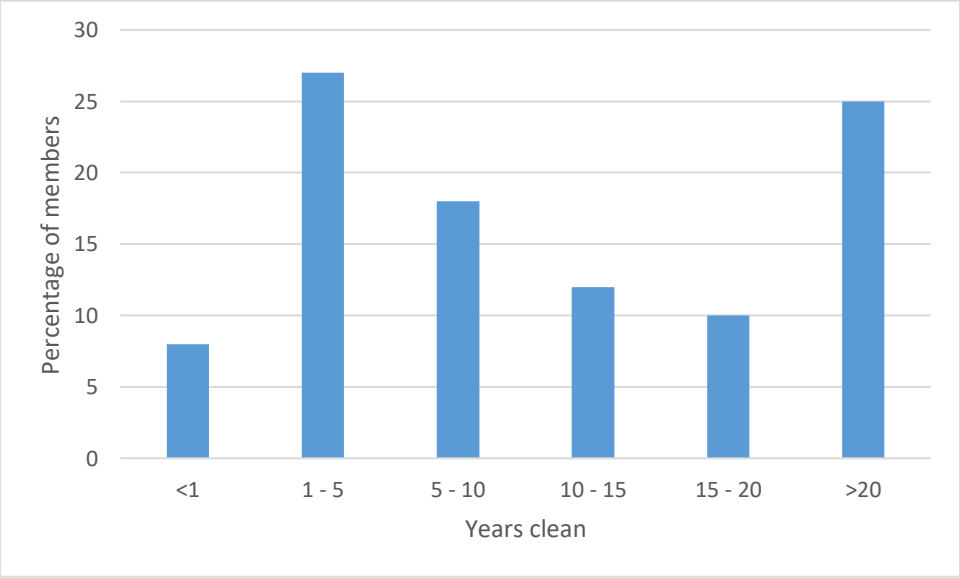

Figure 2: Length of clean time of surveyed members of Narcotics Anonymous 2015

Data from the Narcotics Anonymous Membership Survey 2015 (Narcotics Anonymous 2015)

According to the fellowships, AA, NA and OA, the keys to abstinent recovery from addiction are around individuals honestly taking responsibility for themselves and their actions, both past and present, through talking and listening, never expecting to reach perfection but always working towards improvement. (Narcotics Anonymous 2008; Wilson and Alcoholics Anonymous 2013; Overeaters-Anonymous 2014), or from a therapeutic perspective the characteristics that improve a person's chances of recovery through 12 step rehabilitation, using the 'fit to 12 step philosophy questionnaire' are; the extent to which a client believes that addiction is the problem rather than just a specific chemical, the extent to which an individual is willing to accept help rather than believing in individual effort, readiness for abstinence, the extent to which a client recognises the impact of addiction on their life in general, comfort with spiritual language, positive expectations and the extent to which their social background supports abstinence based recovery (Leighton 2003)

From the researcher's position there are several misapprehensions attached to the 12 step fellowships by those looking in from the outside. One is around the idea of spiritual awakening. It is not defined as a religious event, but a change in the individual's life and includes: Individuals begin to give back to others, they know themselves better and generally enjoy a sense of well-being, they have an understanding of their own higher power whether that is a god of some sort, nature, the power of the group or whatever they chose (Wilson 1976). Further, there is always the impression that the 12 step fellowships have a religious connection, because of the use of the word 'God' or 'Higher Power' in their literature, however there is a newer 12 step fellowship (https://aaagnostica.org/) for agnostics and atheists. Another misapprehension is that everyone in the 12 step fellowship believes they have a disease. As previously stated, a common idea is that the addict suffers from a dis-ease. A final common misunderstanding is that everyone in the fellowship is working on the 12 steps, whereas in the original AA Big Book, it was expected that a person go through the first 9 steps just once (clearing up the past) and then just continue to work on steps 10 to 12, regularly take care of their emotional and mental wellbeing.(Wilson and Alcoholics Anonymous 2013).

The researcher has found more recent changes beginning to emerge within the 12 steps, with a modern language, simplified version of the 12 Steps:

1) The addiction has beaten me. My life is a mess.

2) There is help/support out there.

3) I let a Higher Power/support system take over and help me.

4) I need to take a closer look at my life – bits that work, bits that don't.

5) I admit to my Higher Power/support system the things I did wrong.

6) I am ready to be free/make changes.

7) I ask a Higher Power/support system to help me be free and make changes.

8) I ask: who did I hurt? How do I fix it?

9) I try to fix things if I can and genuinely apologise.

10) I continue to look at myself honestly, making changes as required.

11) I ask a Higher Power/support system for help to live the right way.

12) I live by these steps and get better. I try to help other addicts.

(https://www.addictionhelper.com/treatment-rehab/twelve-steps/simplified-twelve-steps/)

These simplified 12 steps are widely available on the internet by simply searching for '12 steps simplified'.

From the researcher's perspective, one of the strongest elements of the 12 step fellowships for members is the belonging. For addicts the experience of coming into the fellowship is akin to finding their tribe. Like any group there are bonds that hold us together, these are the commonality of addiction experiences.

Smart Recovery

A more recent addition to the self-help group is that of the Self-management and Recovery Training, also known as SMART recovery (Overstreet 2014). Its stated aims are to provide an alternative to AA, bringing a structured approach to recovery for any addiction and for anyone who wants (Horvath 2000) .It uses cognitive behavioural techniques (CBT) and motivational interviewing techniques (MI) in a prescribed order of 40 sessions, to maximise momentum towards recovery. SMART has a 4 point recovery program as follows:

1. Build solid motivation to change or stay changed.
2. Cope with your urges and cravings to return to self-defeating behavior.
3. Manage your problems and your self-defeating attitudes, feelings, and actions.
4. Balance your lifestyle between short-term and long-term satisfactions (to make it less likely you will decide to return to addictive experiences) (Horvath 2000)

Meetings have a facilitator who have received the two-day training provided by SMART and they follow the prescribed manual in meetings, focussing on 'here and now' issues rather than looking at past events (Kelly et al. 2017). Meetings are generally 90 minutes long and have 12 attendees (Horvath 2000). Tools used within SMART include: MI cost benefit analysis of making a change, goal setting, changing plans, craving logs, problem solving, role playing, thought feeling and action worksheets (Kelly et al. 2017). The SMART manual gives little indication as to why the method works, however it appears to prepare facilitators to provide the program, enabling people from all different backgrounds to access the information and work with the group (Overstreet 2014). One exploratory study found participants felt the most helpful elements to be: client participation, ability to relate to others, chance to get feedback from peers, opportunity to have a voice and contribute to

discussions. The most helpful elements of the program were: cost benefit analysis and goal setting. The least helpful items being urge logs and role playing. Both participants and facilitators suggested improvements could be made to increase the number of meetings available each week, longer sessions, more time for participants to share freely, more topic nights, more tools, make practical tools more education and better promotion (Kelly et al. 2017).

Overall, SMART recovery is in its infancy with a small budget and the goodwill of many, however it is hoped that it will continue to grow and develop as it is aiming to give CBT and MI away at no cost to addicts in need of help (Horvath 2000). From the researcher's position, SMART recovery provides many of the same elements as residential rehabilitation, without the residential element.

Approaches to residential addiction treatment

Approaches to addiction treatment have been varied over the years. Christian groups had been providing residential care for alcoholics in the UK since the 19th century. Bill Wilson was originally a member of the Christian organisation 'The Oxford group' before starting AA, (Wilson and Alcoholics Anonymous 2013) and the four absolutes of the Oxford Group were adopted in early AA, these being; honesty, purity, unselfishness and love. (see 'The self-help movement', above). Over time other approaches developed. For example, the idea of the Therapeutic community (TC) came from the mental health field in the 1940s and was developed by a small group of psychiatrists including Tom Main who first coined the expression in 1946 (Main 1977). TC's for addictions began in the 1960s.

A 'drug free' or 'concept' treatment centre, later called TC for addictions has been defined as 'a drug-free environment where those with addictive problems live together in an organised and structured way to promote change towards a drug-free life in the outside society' (De Leon and Ziegenfuss 1986). Not all residential treatment programmes are TCs and not all TCs are organised and delivered in a residential setting (Broekaert et al. 1999). Other types of treatment approaches that were confrontational became popular and were mainly known as 'concept houses'. Examples in the UK were Phoenix House, Alpha House, Featherstone Lodge Project and the Ley Community. Confrontations came largely from US treatment and Harry Tiebouts' psychoanalytic observations in the 1940s and 1950s of character malformation, in the form of ego inflation, self-encapsulation, inner tension, hostility and a preoccupation with power and control. The confrontational episodes were aimed at breaking down the alcoholics' denial and argued that alcoholics were not capable of accurate self-perception due to a complex system of defence mechanisms (denial, projection of blame) that allowed them to justify their drinking (Tiebout 1953). This train of thought led to interventions including blunt feedback, screamed criticisms of character, challenges, intense argumentation, ridicule, and purposeful humiliation. Many of the staff in these types of

settings were in recovery by this method themselves and their own experiences of treatment were transferred into their practices and never questioned.

In the late 1980s to early 1990's other tiers of drug treatment were introduced due to the increase in heroin availability and the HIV epidemic (Harker 2010; Morgan 2014). These included opioid substitution treatment, such as prescribed methadone, and harm reduction interventions, such as needle exchanges and day care or treatment (Reuter and Stevens 2007). The researcher has found that day care has become extremely varied from area to area, with the best way to establish what is available in any location being to check the local authority's website under adult social services. Day care can include such things as music therapy, (Harrison 2019) positive psychology journaling (Krentzman et al. 2023) and in our area, drama courses and equine therapy. The most widely used approach in residential settings is 12 step treatment, based on the original AA 12 steps (see The self-help movement, above) and focusing on the physical, psychological and spiritual aspects of addiction. An important difference between TCs and 12-step programmes is the fact that TCs do not refer to addiction as a disease. TC is based on the medical model of addiction and they do not believe in the concept of a Higher Power as AA does in four of its 12 steps (Galanter 2007) .

From the 1990s, longer term residential treatment was modified to shorter term to account for drug-using women with children, imprisoned drug users and individuals suffering from dual diagnosis. The 2010 drug strategy dictated best practice incorporating evidence based interventions (Home Office 2010) but the lack of financial resources to embody these in a treatment setting caused many rehabilitation centres to close despite warnings (Advisory Council on the Misuse of Drugs 2017).

Today's residential settings are governed by the Care Act - 2014 and administered by the Care Quality Commission (Department of Health 2014). The regulations in the act require that clients are offered person-centred, empathic care and are always treated with dignity and respect. Treatment is a collaborative process between the client and staff and it is expected that clients have a choice and should be encouraged to take risks (Department of Health 2014). Current treatment settings use many approaches including "here and now" group therapy (for addicted populations), cognitive behavioural and motivation approaches are generally required by local authorities for all providers, and other psycho-educational information groups along with relapse prevention, coping skills and vocational training. The 2017 drug misuse and dependence clinical guidelines are based on current evidence of best practice underpinning authoritative guidance with a clearer focus on the individual and treating the whole person, thereby meeting a host of needs (Independent Expert Working Group 2017).

The National Drug Treatment Monitoring System, NDTMS (PHE 2016), currently part of Public Health England, is aimed at gathering information from all clients in treatment to

monitor the effectiveness of alcohol and drug treatment services and to produce statistics to support ongoing research. The information gathered is related to the type of interventions used with the client and how long the intervention stayed in place. Current evidence suggests the following are the most beneficial to treat addiction: Motivational Interventions, CBT, Relapse prevention, (Jhanjee 2014) 12 step approach, Family and Social Network involvement, Mental Health Evidence-based psychological Interventions, Parenting Support, Peer Support, Family Housing Support, Support Involvement, Employment Support, Education and Training Support, Complementary Therapies (e.g. relaxation), Smoking Cessation, Hepatitis C Treatment, Domestic abuse and violence support, Take home Naloxone and training information (National Treatment Agency for Substance Misuse 2010; National Institue for Health and Care Excellence 2017). This researcher has seen in 2023, local authorities asking treatment providers to include Trauma Informed therapy into their programs, which takes the position of finding out what has happened to a person rather than trying to find out what is wrong with a person. This is based on the idea of trauma coming from aversive childhood experiences (see ACEs in Literature review) leaving clients to feel unsafe in most situation, this requires therapists to enable client's to create islands of safety for themselves as they work through the previous traumas they have experienced and survived. However as bidding documents for local authorities are embargoed it is impossible to evidence this at present. Overall, these changes mean that although a facility maybe called a 12 step treatment facility they have evolved from the original 12 step program to include all currently evidence based therapies. Generally, 12 step is included in the majority of treatment in the UK, because if clients can be encouraged to engage with the 12 step fellowships, they have access to free support in life from then on.

Nevertheless, it could be argued there are too many variables involved in a person's treatment journey and it is therefore impossible to capture every element of the treatment episode for NTDMS. Treatment is a real-life, moment by moment experience consisting of many factors. Often this care is shown in non-specific interactions such as taking time with clients outside of the interventions identified by NTDMS for simple activities such as sharing a cup of tea and general chat. These non-specific factors are subject of debate within the treatment field (Morgenstern and McKay 2007; Miller and Moyers 2015)

Natural Recovery

The phenomena of natural recovery has been investigated, with mixed findings. There are people who consider themselves to have recovered from addiction without external intervention. Often people who viewed themselves as naturally recovered were deemed to be low risk for drinking or had limited drug use (Sobell et al. 2000). More recent research supports the idea, with rates as high as 75% to 77% for drinkers in remission, to 59% for heroin users (Best 2010). Klingemann (1991) found participants who had either experienced a violent disruption to end their using, or those who simply drifted out of it, or who

succumbed to social pressure or others who reached cross-roads, all ending in auto-remission without turning to clinical intervention or self-help groups. Another method of exploring the definition of recovery, found high agreement between participants who considered themselves to have experienced multiple pathways to recovery, including natural recovery, and defined recovery as a way of being that included growth, changing self-awareness and internal values with moral dimensions (Borkman et al, 2016)

Chapter Summary

Addiction is a serious problem within society costing billions of pounds and directly affecting the lives of millions of people in the UK alone (Barber et al. 2017). Research around the subject has been undertaken for many years resulting in different definitions of addiction (American Psychiatric Association 2013; World Health Organisation 2018) and many theories applied to addiction (Alexander and Schweighofer 1988; Alexander 2008; Moss and Dyer 2010; Jordan and Butler 2011; Wojtynkiewicz 2016; Maté 2018; Hiebler-Ragger and Unterrainer 2019). Overall, it appears that addiction has roots in poor attachment, resulting in ineffective emotional regulation, with neural and psychological components that may or predate the addiction and result in poor emotional regulation, unhelpful coping strategies and distorted thinking. There are ongoing debates about addictions, particularly behavioural addictions, questioning the validity of calling them addictions and varied suggestions regarding treatment. There are even questions as to the term addiction and its meaning and definition. There is, however, an undisputed desire to understand what lies behind addiction and to find new ways to combat it which results in the continued research into the subject.

Chapter 3: Current evidence from addiction research

Introduction

The drug and alcohol field of research is dominated by quantitative research in the biological and laboratory sciences, with only a small percentage being qualitative (Olsen et al. 2015). Although qualitative research can gain information from less easily accessed participants, it can be more costly and time consuming making it seem a poorer use of limited resources (Maher and Dertadian 2018). The literature identified has a range of examples of where addictions differ, for example behavioural versus substance, and where they are similar, for example in the areas of escape and coping.

Impairment and Trauma

A quantitative longitudinal study of 1,539 children, born between 1979 and 1980, from disadvantaged homes in urban Chicago found that for both males and females, increased incidents of dichotomous adverse childhood experiences were associated with poorer mental and physical health and an increased likelihood of substance use in early adulthood (Mc Elroy and Hevey 2014). Problems increased in line with the number of events from the following: involvement of child protection services, abuse or neglect, victim or witness of violent crime, parent substance abuse, prolonged absence of parent, divorce, death of someone close, frequent family conflict and financial problems, experienced between birth and 15 years of age (Mc Elroy and Hevey 2014). However it has proved difficult generally to substantiate the 'life events' theories of addiction (O'Doherty and Davies 1987) as life events are viewed retrospectively. Further, this research does not provide insight into what these dichotomous experiences meant to the individuals who experienced them, how such experiences shaped their feelings about themselves or how they impacted on their beliefs about life. This study shows links to the work of Maté, in that it highlights life events which may be described as traumatic which predate using (Maté 2018)

For one study in Toronto participants were recruited via internet advertisements on public and university websites targeting young treatment naive social drinkers who had experienced at least one drinking episode in the previous 30 days (Wardell et al., 2016). From 232 participants with a mean age of 19.75 years, 134 (57.75%) met the cut-off criteria for childhood abuse using Bernstein and Fink's Childhood Trauma Questionnaire. Using the UPPS-P scales (Urgency, Premeditation (lack of), Perseverance (lack of), Sensation Seeking, Positive Urgency) self-report methods (Cyders et al., 2007; Smith et al., 2007) negative urgency (a facet of impulsivity) was identified as a key mediator between childhood abuse and subsequent problem alcohol and cannabis use (Wardell et al., 2016). This may indicate that people who drink in response to negative emotion take more risks when drinking and

may lack other coping skills. Findings that maltreated children and adolescents show increased arousal for negative emotions compounds the issue as these young people already have heightened awareness of negative emotion increasing their likelihood of drinking (Wardell et al. 2016). However, participants gave no insight into their feelings about their experiences or how they dealt with them, meaning it is not possible to identify a cause of the tendency other than abuse in childhood.

A quantitative study of 452 students in Iran identified a positive correlation between student's self-reported scores on the Addiction Potential Scale (APS) and the Difficulty in Emotion Regulation Scale (DERS) in the dimensions of: no acceptance of emotional responses, difficulties in engaging in purposeful behaviour, impulsivity, limited access to emotional regulation strategies and lack of emotional clarity (Nikmanesh et al. 2014). Ineffective emotional regulation has been associated with eating disorders and substance use disorders. In research carried out by Dingle et al (2018), substance use disordered participants indicated that they may have turned to substances to enable emotional regulation, in line with the negative reinforcement theory of addiction, which suggests that addicts continue to use or behave in certain ways because it alleviates negative feelings despite negative consequences. (Dingle et al. 2018)

One study using ethnographic interviews of 13 treatment-naïve methamphetamine users, 7 men and 6 women, in Los Angeles County, explored the situation around the initiation of drug use (O'Brien et al. 2008). All but one participant had suffered abuse in childhood, either emotional, physical or sexual, with their reactions being to flee, hide injuries or say nothing. Three told the authorities that fleeing to a protective peer group such as street kids or gangs and drug users, and using drugs offered escape from abuse and some freedom, strength and toughness and a desire to be self-reliant. One respondent sought drugs due to feeling neglected. Most respondents related ambiguous feeling towards their families, betrayal, resentment and love, a theme that eventually repeated in their drug using peer group (O'Brien et al. 2008). These findings imply that these patterns of behaviour learned in childhood repeat throughout life unless there is some change in cognitive patterns of behaviour and suggest that without some intervention these individuals will continue to make the same choices with the same results.

Another common theme as the using progressed was that of isolating as more and more friends died. The participants described detaching from the world in various ways, using drugs a way to stop feeling (O'Brien et al. 2008). The theme of escape is common in addiction and in coping literature where escape is seen as a coping strategy (Lazarus and Folkman 2015). Escape as a form of coping is common to addicts and non-addicts alike and this research indicates that these participants used escape in relation to their abuse.

The incidence of childhood abuse is 40-90% in the substance user population as opposed to 12.5% in the general population, (Banducci et al. 2014). A study looking at the effects of

childhood abuse on inpatient substance misusers (Banducci et al., 2014) found that child sexual abuse predicted risky sexual behaviour, physical abuse predicted aggressive behaviours and emotional abuse predicted emotional dysregulation (Banducci et al. 2014). Other studies have found twice as many traumatic life events in the lives of individuals with substance-use disorders compared with control participants as well as markedly higher anxiety levels (Christo and Morris 2004). A meta-synthesis of early life stress suffered by addicts revealed the role of stressful and traumatic experiences and the subsequent use of addictive substances as a coping strategy (Teixeira et al. 2017), Although these studies indicate a relationship between negative early experiences and later addiction problems, they did not analyse how these early experiences impacted on the addicts themselves, how they felt, what they thought and how this changed what they believed about life as a result of these experiences. Despite abuse and aversive incidents in the early life of an addict being demonstrated as more frequent than for a non-addict, it is not universally true that those who suffer abuse or aversive early life events will become addicted. One possible theory to explain this is 'the learned helplessness effects', first described by Seligman in 1975 (Volpicelli et al. 1999). Originally described as an animal behaviour it has since been expanded to potentially cover adults with PTSD with later increases in alcohol consumption. The theory suggests that the level of control an individual has over events or their reaction to them affects their response to events. The less the control the greater the trauma experienced causing behavioural changes such as: increased general arousal for example sleep difficulties, anger outbursts, hypervigilance; active and passive avoidance such as avoiding people or places and numbing feelings with alcohol (Volpicelli et al. 1999). This might suggest why the percentage of addicts who have suffered childhood abuse is so much higher than the general population, but also hint at the reason the other 20% have experienced addiction – they have experienced an aversive event that was out of their control to deal or cope with.

All these examples can be read as giving support to the theories of both Alexander and Maté. They all demonstrate how events that can be deemed as detrimental to the individual preceded these individuals addictions (Maté 2018), and there was no support available in the community (Alexander 2008).

Family matters

To investigate the role of family events and relationships in the development of addiction a case-control study was undertaken comparing male addicts and their families (40) with male schizophrenia sufferers and their families (17) and healthy male controls and their families (27) (Pomini et al. 2014). Schizophrenia was chosen as a psychiatric disorder comparable to addiction. Results indicated that individuals with schizophrenia had experienced more stressful life events than the addicts or the control group, with the latter two showing no difference (Pomini et al. 2014). The addicts perceived themselves as receiving less care/

more rejection from fathers than the group with schizophrenia and more over protectiveness/ control from fathers than the control group, but no difference was perceived amongst the fathers of the three groups with regard to the care given. However, a current or past mental health issues with fathers was found to be more prevalent in addicts than controls, although there was no perceived difference in rejection by mothers between the three groups. Therapeutic work with heroin addicted children often recommended that the families reduce over-protectiveness and over-involvement with the addict as part of the treatment process. Further, the underlying belief that addicts have a problem they should deal with whereas schizophrenia is a medical condition may have skewed the results along with the fathers view of their offspring's condition (Pomini et al. 2014). The control group and the addicted group showing no difference in stressful life events runs contrary to other research in the field which suggests addict have more stressful life events. Although the sample size is small, the unexpected difference may be related to the idea that the individual's ability to cope is the defining factor (Volpicelli et al. 1999). Some of the data collected was qualitative, however it was given numerical values for statistical analysis. It could possibly have been helpful to have seen the qualitative data represented. Amongst other things, this study demonstrates the stigma of addiction, a societal problem that needs to be removed before addiction can be resolved at a societal level, as suggested by Bruce Alexander (Alexander 2008).

The onset of addiction

The age of onset of addiction varies between addictions. For eating disorders, research has been undertaken with sufferers aged from as young as 8 years old (Pretlow 2011). Studies with other addictions have found various ages of commencement for alcohol from 13.43 to 15.24 years, heroin 17.62 to 18.89 years, and cocaine 17.24 to 19.61 years (Mullen and Hammersley 2006). Many problems of addiction begin in adolescence, a time when it has been empirically shown that there is an imbalance between the development of the parts of the brain responsible for processing emotional information and the regulation of those emotions, leaving adolescents vulnerable to developing psychological problems including addiction (Shadur and Lejuez 2015).

Temperament and character

At present it is usual for substances of addiction to be studied in isolation, with individual studies seeking only participants with a single specific addiction. For example, a study of 84 therapy seeking drug addicted participants using Cloninger's Temperament and Character Inventory, found that scores were high on Novelty Seeking, Reward Dependence and low on Self Directedness. This was associated with temperament and character traits of impulsiveness, irritability, exploratory, easily becoming bored, wanting to please others, sentimentality, immaturity, and ineffectiveness. This results in an at-risk definition of 'frail character, vulnerable to development of personality disorders, with difficulties in pursuing

their goals, always in need of external rewards (Sarra et al. 2014). Different studies using this method have come to different conclusions regarding co-operation and Self-transcendence (Sarra et al. 2014). This research provides insights into possible character traits in addicts presenting for treatment. However, as the participants are treatment seeking and the information given concerns their current position it gives no indication as to the development of these traits. Further, it is not clear whether addicts who do not seek treatment would present with similar traits.

A qualitative study was conducted on anonymous interactions on an open access website for overweight participants aged 8 to 21 years from 2000 – 2010. Many website users exhibited DSM-IV substance dependence criteria in relation to highly pleasurable food. Initially it was presumed that providing information on healthy eating, portion control, exercise and peer support would help alleviate weight problems. However, there was little to no weight loss and even some weight gain. Pretlow (Pretlow 2011) stated that: 'The level of human misery expressed in the messages of these youths was appalling'. There were similarities to the DSM-IV criteria for addiction in amount of use over a long period, unsuccessfully trying to cut down, continuing to eat excessively despite consequences and tolerance. Withdrawal was also mentioned in that participants described craving certain foods when trying to cut down. (Pretlow 2011). Although the DSM-IV substance dependence criteria are not the only definition of addiction this study again highlights the similarities between substance addiction and other damaging behaviour patterns.

The similarities in presenting emotional issues between food and other addictive issues are evident. Although there is little research into the reasons behind food disorders it could possibly be interesting to see how they align with other addictions. With one of the questions at the heart of this thesis resting on wanting to identify common themes in underlying thoughts, feelings and beliefs that predate a person's addiction to substances and behaviours, this evidence lends weight to the idea that addictions to substances and behaviours have some common roots.

The drivers and demotivators

One qualitative study of 26 older male Glaswegian addicts (mean age 34, free of heroin 6 months – 7 years) explored pulls and pushes between the drug sub-culture and the conventional neighbourhood. It found pulls and pushes for both situations. The sub-culture offered risky situations (excitement), potential income, and alleviation of life stressors, boredom, and physical pain versus risks and harms of heroin, the discomfort of a personal rock bottom, and the emotional realisation of the possibility of death. For the conventional neighbourhood the pulls included family, relationships (particularly with children), being trusted, and a socially valued role versus the tedium of a straight life, the stigma of being a 'junkie', the distrust and exclusion by the family and neighbourhood. Recovery was a journey,

self-initiated with the strengths of the various pulls and pushes tending towards the conventional neighbourhood at the time of initiation. Pulls and pushes were generally present throughout the addiction experience, and it was their perceived strength to the individual that altered, occasionally resulting in relapses (Mullen and Hammersley 2006). This gives a clear indication of the motivators and drivers at play in addiction to drugs. It could be speculated that at the beginning of an addiction the perceived pulls of the addiction outweigh the pulls of the conventional neighbourhood, possibly due to factors such as not fully accepting the harms or minimising their potential impact.

At present on-line gaming is beginning to be researched as a potential addiction and as such its similarities to substance addiction are of interest in this thesis. A qualitative study of 71 online gamers of massively multiplayer online role-playing games (MMORPGs) recruited via posts on online gaming forums found several relevant emergent themes; addictiveness, psychosocial impact, dissociation and time loss, and alleviation of negative feelings and moods (Hussain and Griffiths 2009). The psychosocial impact included both positive attributes (meeting new people, computer use proficiency, co-operation, reading and comprehension) and negative attributes (loss of real time friends, quitting school / job, not going out, personal physical neglect and restlessness). Online gamers used MMORPGs to alleviate negative feelings, loneliness, boredom and frustration. While these participants did not present as requiring help for their MMORPG usage, the similarity between their reasons for playing and the negative attributes reflect themes in addiction.

One interesting point with these studies is the inclusion of positive attributes. This demonstrates the possibility of positives in addiction. This ties in with the idea of Maté's that addiction is undertaken as the solution to the problem of unbearable pain. In order for that to be true, there need to be positives to addiction, at least in the early stages (Maté 2018).

In view of what is perceived as increasing in internet use via smart phones (Kim 2018) research has been conducted to see how young people are affected and how addiction manifests. Interviews with 35 college students showed that whatever their reason for using smart phones, excessive use led to a range of problems including; physical health problems, mental health issues, decreased productivity, not living in the moment, decreased attention span, pressure to answer right away, fear of being excluded and not being grounded in the real world. Offsetting these were convenience, utility in emergencies, and opportunity for self-expression. Similarities to traditional signs of addiction were: preoccupation, and inappropriate use of the smart phone, including during family meals, while driving, while walking, and in social gatherings (Kim 2018). Similarities between internet addiction and alcoholism have also been found in other areas. In a study comparing participants with internet addiction, participants with alcoholism and healthy controls using the Five Factor model of personality, Internet addicts and alcoholics showed lower agreeableness, extraversion, openness to experience and conscientiousness and higher neuroticism,

impulsivity and anger expression and were more depressive and anxious than the healthy controls (Hwang et al. 2014). However other studies question the use of the prevalent addiction paradigm to describe internet use disorders, preferring to frame internet addiction as a coping or compensation activity (Kardefelt-Winther 2016). Still others propose attachment insecurity or stressful childhood experiences as the basis of internet addiction (Kardefelt-Winther 2016) (See Literature Review: The history of addiction, self-help and treatment; Theories of addiction). Similarly, substance addiction could be framed as a coping or compensation activity based on attachment issues or aversive childhood experiences or traumas (Maté 2018).

Adaptation

There is a view that addiction is an issue of adaptation, whereby an addict has adapted their behaviour in order to alleviate distress. This view asserts that this addictive behaviour can be changed when a more efficient option is available (Alexander and Hadaway 1982). One qualitative study of 5 heroin users found that opiate use had become their main way to cope with normal human situations and emotions, as they had failed to find or adopt a wider range of coping skills to deal with distress. The whole process of using was being used to replace usual methods of producing stability (Khantzian et al. 1974). Although this is the only study identified exploring this view it introduces the idea that addiction starts to enable an escape from societal problems and returning to addiction enables individuals to continue to escape. This argument overlooks the fact that societal and interfamilial factors can cause identity problems leaving the individual less able to cope with later life challenges and stressors. Further, it was highlighted that many such familial and societal arguments are put forward by individuals who are still using, to justify and rationalise their position. This study also highlights that overindulgence as well as deprivation can lead to early ego impairment, or problems with identity.

Another study found that drug addicted participants had dysfunctional beliefs and exhibited dysfunctional coping attitudes (Yigitoglu and Keskin 2019). A negative relationship was found between dysfunctional coping styles and age at onset of using, such that the younger the commencement of using the greater the dysfunctional coping, and the further emotion-focused coping was triggered by dysfunctional beliefs. Yigitoglu and Keskin believe that the origin of the dysfunctional beliefs and practices are found in childhood, when beliefs about the self, others and the world are developed and stabilised. It is these schema that become maladaptive, causing emotional distortions affecting the individuals interpretation of life. (Yigitoglu and Keskin 2019). From these examples it is possible to theorise that an aversive event or events in childhood, whilst not unique to the addicted population, has the effect of causing various types of emotional dysregulation, possibly arising from the individual's dysfunctional coping styles. This results in the individual seeking an alternative way to cope, and for a period of time this dysregulation can be ameliorated by using drugs, replacing

meeting emotional needs through social interaction with meeting them through substances. Further, if this is the case it is impossible to conclude, from overserving external circumstances, who will and who will not be an addict in later life. If this is the case, it could be possible to define drug addiction, and by implication addiction in general, as a maladaptive reaction to experiences in early life. In line with the theories of Gabor Maté (Maté 2018)

Theory of mind and impairment

In a meta-analysis, it was found that people with alcohol misuse disorders had an impaired theory of mind compared with controls (Onuoha et al. 2016), implying that alcohol misusers have a reduced ability to attribute emotions, desires, intents and beliefs to either themselves or others. It is possible that this effect may be a symptom of alcohol use disorder or a result of damage to the brain from the toxicity of alcohol as these findings were independent of IQ or years of education (crystallised intelligence). No other longitudinal studies around theory of mind were identified, however a further study of alcohol misusers found that facial emotion recognition was significantly impaired, especially disgust and anger. Impairment was also found in tasks of decoding and reasoning with an increase in deficits with longer misuse and increased depressive symptoms (Bora and Zorlu 2017) A possible consequence of this is difficult interpersonal relationships and not responding appropriately to social cues. This may have implications for recovery and relapse as alcohol use can be a coping strategy for difficult family / social / interpersonal difficulties (Onuoha et al. 2016). Reduced theory of mind has implications for treatment of alcoholism, especially in a residential setting where several individuals share an environment. To understand addiction, however, it would be helpful to understand where this reduced theory of mind has its roots. It is possible that this might be in social dislocation (Alexander 2008) or in childhood trauma (Maté 2018)

Attachment

In a 22 year longitudinal study of predictors of alcohol use in adulthood it was found that low parent-child attachment, low satisfaction with school, self-delinquency in late adolescents, peer delinquency and alcohol use in emerging adolescence all indicated subsequent alcohol use in emerging adulthood (Lee et al. 2016). A low parent-child parental attachment relationship, seen as a contributor to the other factors identified, links to the idea of addiction as an attachment issue, whereby the individual forms a strong attachment to some other outlet, including alcohol, drugs, gambling or any other addictive activity. This leads to the excessive appetite view of addiction (Orford 2001) with addiction being defined as an attachment to an activity so strong that moderation is difficult despite the harms caused. This definition covers all addictions in that it is possible to see gamblers as being as attached to gambling as alcoholics are to alcohol. Again this might result in social dislocation derived

from excessive stress on the parents (Alexander 2008) or in childhood trauma caused by the lack of availability of the parent (Maté 2018).

Cultural

In a study in Dublin with 16 participants in recovery, both male and female, cultural imperatives were found, with an ambivalence towards alcohol and drinking. Early drinking within the culture was seen as associated with positive social experiences such as relaxation and sociability as well as reducing stress and social anxiety especially around socialising with the opposite sex. The use of alcohol to cope was found to increase over time, and alcoholism was seen as a weakness in men and a moral weakness in women. Contexts for drinking varied, such that men drank in pubs and women in the home. Acceptance of the problem was increased for men by the culture of pub-based socialising and for women by gender based shame. (Cunningham 2012). This adds another societal layer to addiction, highlighting possible gender stereotypes to obstacles in seeking help, however it does not answer questions around when and why drinking moved from a social and relaxing activity to one needed in order to cope.

This leads to the speculation that there could be a difference between drugs and alcohol, in relation to stigma and social stereotypes. A study by the World Health Organisation looking at 18 health conditions found that 12 out of 14 countries studied rated drug addiction as the first or second most stigmatized health condition in their society, with alcoholism being between second and seventh in 13 of the countries (Crapanzano 2019). This demonstrates that although drug addiction appears to suffer from a greater degree of stigmatization than alcoholism, both conditions appear to be highly stigmatized within these societies. Stigma against addiction may have a protective role to play at a societal level, discouraging people from becoming involved, yet may also prevent people from seeking or accessing help once needed. Part of the stigmatization of addiction is the idea that addiction to substances is self-induced and the individual should be blamed for their problem. If this is internalised, individuals can then self-stigmatize potentially resulting in decreased self-esteem, self-respect and self-efficacy, all of which can be harmful to the recovery process. (Crapanzano 2019). It is important to bear in mind the level of stigmatization experienced by drug addicts and alcoholics and their shared difficulties such as: attachment issues, replacing human connection with alcohol, emotional dysregulation, and using to change feelings all add to the reluctance to come forward for help and as such need to be addressed before a universal solution for addiction can be implemented.

Cognition deficits

Gambling is rapidly becoming a serious problem with the increased availability of gambling online. Problems with recognising emotions via musical, vocal or facial stimuli have been

found in chemical addictions, both drug and alcohol (Kornreich et al. 2016), however one study of 22 pathological gamblers found similar patterns to alcoholics, such as decreased accuracy reading faces and voices and overestimating the emotion in neutral faces and voices, decreased efficiency in reading fear and overestimating intensity in voices. This may seem counter-intuitive for a behavioural addiction that includes risk-taking, low boredom threshold and novelty seeking, however inability to accurately process neutral stimuli is also seen in alcoholics and might show commonalities between alcoholics and pathological gamblers (Kornreich et al. 2016). This highlights the idea that some issues that are common to multiple addictions, whatever its manifestation.

Emotional dysregulation

Other research found a greater severity of gambling disorder with individuals with a higher emotional regulation deficit as demonstrated by non-acceptance of emotion, and higher emotional regulation deficits rates in older individuals, especially males. (Sancho et al. 2019). It was suggested that men with an increased difficulty in accepting their emotions could be driven to get further involved in distracting activities as an avoidant coping strategy. Other coping activities could be increased gambling or other distracting activities such as drugs or alcohol (Sancho et al. 2019).

Within a group of 74 exclusively tramadol abusing males, aged between 14 and 20 (17.46 years mean average) who had been referred for treatment, maltreatment and emotional abuse were significantly positively correlated with emotional dysregulation and impulsiveness (Barahmand et al. 2016).

Research into emotional dysregulation and marijuana use carried out on 136 participants (Mean age 20.61, 71 women) in Vermont, recruited from the general population for research into emotions and using various questionnaires found their participants were more likely to use marijuana to relieve negative emotional distress supporting the idea that affect-related drug use is associated with emotional dysregulation (Bonn-Miller et al. 2008).

Difficulty in emotional regulation has been positively correlated with substance and behavioural addictions in other studies (Estévez et al. 2017). Difficulty in controlling overriding impulses about negative feelings, difficulty in engaging in goal directed behaviour and using efficient emotion regulation strategies have all been correlated with gambling, internet addiction, gaming addiction alcohol and drug abuse. Further, poor attachment has been indicated in gambling, internet addiction and gaming addiction (Estévez et al. 2017), and gambling has been shown to have similarities to alcohol and drug addiction in relation to cognition, previously thought to be chemical in origin. It also relates to emotional dysregulation and avoidant coping in the same way as alcohol and drugs.

In a study of 96 treatment seeking obese participants that looked at the relationship between binge eating disorder and food addiction, 57% met the diagnostic threshold for food addiction as determined by the Yale Food Addiction Scale (YFAS - modified from the DSM-IV substance dependence criteria), with most of the rest exhibiting at least three of the criteria for food addiction. Higher YFAS scores were significantly associated with lifetime diagnosis of major depressive disorder, negative affect, emotion dysregulation and lower self-esteem (Gearhardt et al. 2013). Other research using YFAS also found emotion dysregulation as well as negative urgency (acting impulsively under stress) which is consistent with drug addiction (Pivarunas and Conner 2015). These findings add to the evidence of common underlying factors across various forms of addiction. However, they do not investigate the underlying causes.

Co-morbidity

Co-morbidity within addiction is not uncommon, for example, alcohol and drugs, drugs and sex. There is some evidence of co-morbidity between internet use and alcohol where there is a positive correlation between disordered OSN (online social networking) and problem drinking' (Hormes et al. 2014).

Research by Sussman et al (2011) selected 83 studies looking at co-morbidity in addiction within the previous year, with male and female participants and ages ranging between 16 to 65 trying to include only those with in excess of 500 participants. These covered 11 addictive disorders and co-morbidity. Addictions with relatively immediate aversive consequences (social rejections, financial loss and injury (exercise)) such as eating, gambling, internet, love, sex and exercise had a prevalence around 2 to 3%. For alcohol, cigarettes, illicit drugs, work and shopping the prevalence was found to be between 5% and 15% these being generally socially accepted (Sussman 2011)

Research into behavioural addictions co-existing with substance addictions have been undertaken to explore the extent of co-morbidity amongst drug users. A study of 51 participants, all aged 21 or over and currently in substance misuse treatment found that 23 (45%) reported no behavioural addiction, 15 (29%) reported one behavioural addiction and 13 (25%) reported between two and five behavioural addictions (Najavits et al. 2014). This study highlighted that identifying these behavioural addictions may be helpful later in identifying substitution addiction problems (Najavits et al. 2014). In this study over 50% of participants reported at least one behavioural addiction concurrent to their substance addiction. Early identification and addressing of these behavioural or secondary addictions may help to prevent further addictive issues presenting subsequent to the treatment experience. If addiction is a reaction to emotional dysregulation caused by aversive event(s) in childhood it could be argued that multiple addictions are to be expected as multiple coping strategies, despite them being ultimately potential harmful to the individual.

The opiate system in the brain is activated for both addiction to drugs and food (Pretlow 2011). Further, naloxone, which is used to treat heroin addiction, reduces the predilection for fatty or sugary foods, which are the foods usually craved by individuals with eating addiction (Pretlow 2011). There is no research on progression from food addiction to drug addiction, but increasingly there are statistically significant numbers of post Gastric bypass surgery patients, particularly Roux-en-Y whereby a small pouch is created from the stomach and attached to the small intestine, thereby creating a small stomach which feels full more quickly, who subsequently become substance users requiring treatment (Reslan et al. 2014). Individual examples can be found in texts written by people in recovery from addiction: “As a small child, I found out I could ease pain with food, and here my drug addiction began.” (Narcotics Anonymous 2008) loc.2338, “As I got older, my addictions grew to include drugs, alcohol and sex. If something felt good, I used it until it didn’t work anymore,” (Overeaters-Anonymous 2014)

Coping

Coping is repeatedly highlighted as an aspect of addictive types of behaviour. According to Lazarus and Folkman (1984), coping is the method used to manage the demands, both internal and external, that are deemed to tax or exceed an individual’s resources (Lazarus and Folkman 2015). Within NA literature coping is also referenced, talking about how addicts use drugs when they are unable to cope with life (Narcotics Anonymous 2008). Evidence of this can be found throughout the addiction literature and is often related back to childhood. Children appear to accept the abuse they receive from family, seeing it as the norm and therefore perpetuating it in turn if nothing changes. Their failure to retaliate leads to forming avoidant coping strategies (Teixeira et al. 2017). According to Pretlow the teens and preteens in his study ‘used food to cope with life.’ He went on to express that they were unable to stop the behaviour despite being aware of the consequences (Pretlow 2011)

From a meta-synthesis examining 12 studies of early experiences of addicts, aged a minimum of 18 years and self-reporting early life stress and subsequent addiction it was found that avoidant coping was used in the form of alcohol and drug taking to escape the pain and results of early trauma, which had resulted in a sense of degradation, humiliation and low self-esteem. Two themes emerged from this; the pain the trauma had caused and the repeating of dysfunctional behaviour across generations. As this was a meta synthesis no further information was given on the subjects and further follow up was not possible. (Teixeira et al. 2017).

Coping has also been identified in behavioural addictions. With problematic internet use, escape-avoidance and accepting responsibility have been shown as maladaptive coping strategies. Internet use has been demonstrated as an escape from problems. There is evidence that individuals looking to escape from problems, possibly by accepting the

responsibility of others, take these responsibilities to themselves but then look to escape from them. This is a maladaptive coping strategy in that the individual blames themselves for the situation and presumes it is their responsibility alone to address the problem, which has a negative effect on mental health (Senol-Durak and Durak 2017).

Likewise with gambling, a qualitative study with 50 UK gamblers, using a grounded theory approach, found the core coping strategy was that of 'gambling to escape'. Mood modification was the goal for some, whereas for others it was used as a means of coping with other issues such as 'filling the void' or 'avoiding problems'. There were elements of cognitive regret and chasing, and control beliefs depending on where in the addiction cycle a person was (Wood and Griffiths 2007).

Other approaches to understanding addiction have arrived at theories relating to coping. Research around the association between drug use and mood disorders led to the hypothesis that drug use may be used as a strategy to cope with negative or uncomfortable feelings, with opioid users, with its soporific effect, preferring suppression and methamphetamine users, with its stimulant effect, preferring reappraisal for emotion regulation (Mohajerin et al. 2013). Drugs and alcohol have been used as coping strategies in other circumstances. For example, a qualitative study of young men who had suffered a sudden bereavement of a male friend found that they turned to alcohol or drugs to dull the pain and purge sadness. Being drunk appeared to give permission to express feelings that they did not feel to be appropriate for a sober man. For some this drinking continued and became a problem, gradually spiralling out of control (Creighton et al. 2016). At the other end of the journey, according to Hibbert and Best ongoing long term recovery can be described as 'active coping'. (Hibbert and Best 2011).

Taken together, this evidence suggests a prominent role for coping during addiction and in all addictions, however there is little information on what it is that needs to be coped with, or more specifically what the individual believes they are using to cope with.

Outcomes following recovery from addiction.

There is very little research into the positive outcomes of recovering from an addiction. However, qualitative research has indicated a difference between current users and abstinent heroin users in rehabilitation with regards to neutral images, with current users showing higher emotional responses to such images (Aguilar de Arcos et al., 2008). It was suggested that the increased arousal to neutral images may either be as a result of a generally heightened state due to addiction, or that items considered neutral by abstinent or non-addicted participants might be objects of desire to those still using (Aguilar de Arcos et

al. 2008). It could also be suggested that once abstinent abnormal emotional responses begin to subside.

Research carried out by Hibbert and Best on 53 recovering alcoholics, using the WHOQOL Bref, found higher ratings in areas of social relationships, psychological health, environment and self-esteem for those with more than 5 years abstinence than those with less than 5 years abstinence. In particular, those with more than 5 years abstinence scored higher in the areas of environment and social functioning than population norms, 'offering hope of moving to a functioning level beyond the pre-morbid state.' (Hibbert and Best 2011). Despite the small sample, this indicates the possibility of a hopeful future once an addiction has been arrested.

Summary

Most research in this area is quantitative, looking at a single addiction. Although there is some qualitative research available, this is limited and is often quite structured in its approach, with most participants either still using, in contact with services, undergoing treatment or attending aftercare. There is little research into the experiences of people with an ongoing recovery years after completing treatment or research into the emotional state of individuals prior to or at the onset of addiction, whatever the addiction. This research is generally centred around the problems, such as poor attachment, emotional dysregulation, avoidant coping, or how to link addiction to aversive life events. Much of the research is framed in terms of problems with the addicts themselves; temperament, drivers to use, emotional dysregulation, cognitive deficits and so on. These are framed as attributes lacking within addicts, however if Maté and Alexander are to be believed, this evidence is being misinterpreted. The problems lie outside of the addicts and the use of any addictive substance/addictive behaviour is simply the addicts trying to escape the pain of their existence. For Alexander this is societal dislocation and stress in the modern world (Alexander 2008) and for Maté it is in the area of healing inner wounds that have been experienced as trauma. This implies that the deficits that are seen within addicts are not as the result of suffering from the disease of addiction but are impairments experienced as a result of negative life experiences. Further, for Maté and Alexander there really is only one addiction, and it can be to anything that distracts from the pain of existence.

Chapter 4 Methodological Approach

Rationale

From reading and researching the available data there appeared to be areas where further research could be beneficial. These areas related to; studies which include people with long term recovery (5 years or more) to potentially obtain a longer-term perspective on their addiction, and research into the thoughts, feelings and beliefs of individuals with addiction issues, as opposed to researching psychological deficits that might account for addiction. Research tends to examine either events (Christo and Morris 2004; O'Brien et al. 2008; Banducci et al. 2014; Teixeira et al. 2017), or personality traits (Sarra et al. 2014), but what seems to be lacking is research which includes comparison of addictions or multiple addictions to examine possible elements that are common to all addictions and the effects of experiencing more than one addiction at a time (co morbidity), which would be more in keeping with the work of Alexander and Maté.

The overall hypotheses of this thesis are that;

- There are common experiential factors or schemas across all addictions and genders that predate the addiction experience.
- Recovery from addiction is a process rather than an event and therefore improvements across various domains of life will continue to improve over extended time periods.

Purpose of the chapter

The purpose of this chapter is to lay out a research methodology to investigate the lived experience of addicts in recovery from different addictions and multiple addictions over time. It is hoped that through this, new insights into addiction maybe found in the areas of; pre-addiction affect, commonalities across addictions and genders, and the experiences of long term recovery.

Methodology

This research covers two separate but interconnected studies in a convergent triangulation design with the results of the first study providing information for the second study.

The underlying ontology is subjectivism, the first-person perspective, the assumption being that there is subjective knowledge behind the experience of addiction, this is associated with the experience of addiction and being an addict which has both negative and positive aspects and is held at an individual and societal level (Trivedi, 2020). The epistemology is contextualism, in that the knowledge gained from this research will be valid in certain

contexts. The methodology will be Interpretivism accepting that there is more than one version of reality, closely related by their context. (Trivedi, 2020)

The first study is qualitative inductive, using selected secondary data sources to provide insights to enable exploration into the experience of addiction at an early stage of life, looking for common themes across multiple addictions. Thematic analysis was selected as the most appropriate fit for the data type, allowing elements of the data to coalesce into themes rather than predefining themes which in turn allows the capturing of themes not previously considered. Thematic analysis can also be interpretive, allowing for new explanations to be explored. Using thematic analysis themes will be identified and linked through thematic maps.

The second study is quantitative using previously validated questionnaires to look for evidence concerning themes identified in study 1 on a larger scale providing numerical rather than experiential data. It aims to answer the following questions:

1. Are multiple addictions more common that previously thought?
2. Are there any differences between the experiences of drug addiction and alcoholism?
3. Do males and females experience their addictions differently in terms of affect, coping styles or how they perceive their quality of life?
4. Are there any benefits, ongoing or increasing, in long term recovery from addiction?

Research design

There are two studies contained within this research, with the conclusion triangulating the results of the two to determine what information emerges about addiction.

Study 1: Context

Secondary data and thematic analysis are currently used in the health sector (Roin, 2018). Areas such as blogs have been used for narrative analysis (Heilferty 2018). Data synthesis of secondary data (Squires et al. 2018) and thematic analysis of various secondary sources have also been used (Howe et al. 2018; Machimana et al. 2018; Roin 2018) to search for new themes in different specialities, especially the experiences of people undergoing or recovering from various treatments. The advantages of such data include that it has already been collected so is often readily available, and because it has not been led by researcher questions it can often highlight themes that a researcher has not considered and may highlight new items not previously considered. The limitation to this kind of data are; such data is not interactive so there is no possibility of probing, the written word can be read in more than one way making it harder to analyse, without any contextual information the depth of immersion into the data may be different to that experienced during an interview (Braun et

al. 2022; Byrne 2022). Thematic analysis of secondary data sources using Braun and Clarke was selected for the first study in this research (Braun and Clarke 2006; Braun et al. 2022; Byrne 2022).

A constructionist epistemology was adopted whereby meaning and meaningfulness were the central criteria for coding, but attention was also given to the importance of frequency. Meaning and context are felt to be socially constructed and experienced emotionally by the subject. (Braun et al. 2022; Byrne 2022).
The orientation was experiential, this was to facilitate the expression of the meaning given by the participants, how they experienced life prior to becoming addicted, without the necessity to apply a given theory. The analysis aimed to be inductive, producing codes that would be meaningful to the subjects in the areas of the research question: Is it possible to identify commonalities across differing addictions in relation to affect (feeling, thought, belief) regardless of addiction or gender? (Braun et al. 2022; Byrne 2022)
Because the data had been previously collected, without background information beyond the individuals eventual addiction, the coding was largely semantic, however due to the researcher's experience as an addict, in recovery and working in the field, latent coding was used where the researcher felt appropriate, from either her own experience, or from the experience of those she has contact with (Braun et al. 2022; Byrne 2022).

Ethics

There are always potential ethical issues in working with people in recovery from addiction. In this case the data used had been provided by people in recovery to be printed and circulated widely to anyone who was interested, hence there were no ethical issues that were identified. All data was anonymised before publication. (Appendix 1)

Sampling procedure:

The Overeaters Brown Book (Overeaters-Anonymous 2014), The AA Big Book (Wilson and Alcoholics Anonymous 2013), and The NA Basic text (Narcotics-Anonymous 2008) were read looking for the stories that contain any material that met with the search criteria listed below. (See Appendix 3 for data corpus).

Essays are selected for the books in a similar manner for all the fellowships. First, a message is sent from the World Service Office to all groups asking for individual members who would like to submit an account of their life, using and recovery. Each fellowship has its own World Service Office as part of the fellowship's structure. These essays are submitted to a regional editorial committee, who reads them and selects a few to be sent to the World Service Literature Boards. The Literature Board read them again and make a selection,

trying to ensure there is something included that every addict can identify with. The books are updated every 10 to 20 years. For example; the AA book is now in its 4th edition and is nearly 80 years old, the last revision being in 2014, the first edition being published in 1939.

The data was selected from sections of these books which contain essays from people in recovery about their addiction journey. Data items are individual essays and were selected on the following criteria;

- the data item had to relate to early life experiences, either before or at the beginning of the addiction process,
- the data item gave some insight into the thoughts, feelings or beliefs of that person
- the writer's first language needed to be English to avoid issues around translation.
- The data item needed to be from within the past 50 years, to reduce the effect of cultural changes, such as the end of prohibition and rationing, civil rights issues etc.

Data items were selected according to the criteria above. The essays themselves range from around 6 to 12 pages in length. These stories are readily available and will produce themes that can be further explored in study 2.

Analysis

The thematic analysis had six phases. The first phase was to repeatedly read the texts for familiarisation, the second phase was to make a list of initial repeated sentiments and words to provide initial codes. The third phase consisted of looking at these codes and collating them into themes. The fourth phase was to review the themes looking at how they related to each other, the data extracts and data items and provide a thematic map. The fifth phase was to provide a definition for each theme, and the final phase was to produce the report (Braun and Clarke 2006). Figures 1 and 2 are thematic maps.

Study 2: Context

This study aimed to corroborate and extend the findings from the first study. It study took a quantitative approach, asking participants to recall their emotions and coping skills from the time at the beginning of their addiction to see if there were any similarities to the findings of study 1. This aimed to extend the research from study 1, looking for supporting evidence for the findings of the thematic analysis. This study explored the prevalence of multiple addictions, potential gender differences and improvements in recovery of the internal experiences of addicts in order to explore the experience of addiction from pre-addiction to long-term recovery. In the first study it was impossible to ascertain the gender of the writer of any data item, however in addiction single gender studies are conducted, generally exploring relational and cultural factors (Birath et al. 2010; Cunningham 2012; Hernandez-Hons and

Woolley 2012; Creighton et al. 2016), By including gender in this study it is possible to examine if there are any significant differences of affect or coping styles between males and females that relate to addiction rather than intersectionality. It was hypothesised that there would be limited differences between addictions or genders in relation to affect or coping during addiction, and that life would be perceived as continuing to improve with length of recovery.

Ethics

There are ethical issues around asking participants to recall what may be a painful time in their past. To address this the questionnaire was online and voluntary. In the guidance it was made clear that a participant may withdraw at any time by exiting the site. It was impossible to remove data after submission as no personally identifying data was retained. The following help and support numbers and websites were provided in the information sheet: Narcotics Anonymous Helpline: 0300 999 1212, Alcoholics Anonymous Helpline: 0800 9177 650, Cocaine Anonymous Helpline: 0800 612 0225 and the Samaritans: 116 123. The participants were made aware of the nature of the questionnaire before starting. Participants were also informed about the purpose of the research.

Participants

The data for this study was collected online via Qualtrics and promoted via Facebook using a specifically produced Facebook page. Participants were required to be in recovery from one or more addiction(s) and be a minimum of 18 years old. In total 250 participants started the questionnaire, and 115 participants provided sufficient data for analysis. Basic data was collected including primary addiction, secondary addiction(s), age, length of time in recovery and gender.

Snowball sampling was used for recruitment, as it is a good way to recruit participants from a wider recovery group, as often people in recovery are in touch with others in recovery for mutual friendship and support. The questionnaire was made available via links on a Facebook page (provided specifically for this study because of the ease of access for a broader range of people who would be inaccessible through other means such as email) on the BU website, the StreetScene Addiction Recovery website (StreetScene Addiction Recovery being a charity providing residential treatment places for addiction). Links were also shared from the Recovery Plus newsletter and by email to colleagues who work in the field with a request that they share this with any interested party. The questionnaires was live for 2 ½ months, giving ample opportunity for the information to spread.

Materials

For this research three previously validated questionnaires were used, covering two different time periods in a participant's life. The two time periods were selected to represent a time prior to the onset of a recognisable addiction and the present time in recovery. The age of 15 was selected from two data sources. Firstly, commencement ages for addictions have ranged from as young as 8 years for eating disorders to 19.61 years for cocaine addiction were found (Mullen & Hammersley 2006; Pretlow 2011). Secondly, the reminiscence bump has been demonstrated as a robust phenomenon whereby recall of events from childhood to young adulthood (from around 10 to 30, with certain variations) are recalled more often and clearly than events from other time periods (Rathbone et al. 2017; Luchetti & Sutin 2018; Melendez et al. 2018; Luchetti, 2018; Janssen, 2011; Munawar, 2018). The present time was selected as the comparison to examine variations found in recovery over time.
The questionnaires selected were PANAS X, BriefCOPE and WHOQOLBref as these ask participants direct questions. It was always the intention of this study to ask people in recovery for their honest opinion rather than try to explore their interior world by other means.

PANAS X

PANAS X is the expanded version of the original PANAS (Positive And Negative Affect Scale) (Watson and Clark 1994) and was selected as a self-reported scale of affect that could be completed in under 10 minutes. It has been shown to have a high internal consistency with regards to positive and negative affect, as determined by Cronbach's alpha (Serafini et al. 2016) PANAS and the longer PANAS X have been used in many differing situations, including addiction, PTSD and HIV (Perry et al. 2013; Krentzman et al. 2015; Marchand et al. 2018; Rzeszutek 2018).
Participants were asked to complete this survey twice, once from their recollection of life at around 15 years of age, to explore if there are common experiential factors across addictions and genders that predate the addiction experience, and once from their current position to see If there are improvements in affect from pre-addiction to recovery.

PANAS X (Watson and Clark 1994) is designed to investigate both positive affect and negative affect. It consists of 60 items (See Appendix 5 for questions and their relationship to affects measured). For each item a scale of 1 to 5 is used representing: 1 = Very slightly / not at all, 2 = A little, 3= Moderately, 4= Quite a bit and 5 = Extremely. The emotions explored (with the number of words relating to them) are; General Positive Emotion (10), General Negative Emotion (10), Fear (6), Hostility (6), Guilt (6), Sadness (5), Joviality (8), Self-assurance (6), Attentiveness (4), Shyness (4), Fatigue (4), Serenity (3), Surprise (3), Basic positive affect (joviality + self-assurance + attentiveness) and Basic negative affect (sadness + guilt + hostility + fear). Each total was calculated by adding the individual scores and dividing them by the number of answers provided in that category. These totals were calculated in the data file. PANAS and the longer PANAS X have been used in many

differing situations, including addiction, PTSD and HIV (Perry et al. 2013; Krentzman et al. 2015; Marchand et al. 2018; Rzeszutek 2018). Serafini et al, (2016) noted that there was high internal consistency with PANAS with regards to negative and negative affect, as determined by Cronbach's alpha, 0.90 and 0.91, respectively.

Brief COPE

The COPE was selected because it has been successfully used in research on alcohol addiction (Hasking and Oei 2002). For this study the brief version was used because it has two questions for each of the 14 identified coping styles and therefore has 28 questions as opposed to the full 60. This was to reduce the time needed to complete the study and therefore reduce participant stress. The short form of COPE has been used in previous addiction studies (Monzani et al. 2015). Cronbach's alpha has been used to test validity of Brief COPE with medical students (Yusoff 2010) and with adolescents (Yusoff 2011), both of which found it to be valid and reliable. Participants were asked to complete this survey from their recollections from the age of around 15, which was identified as a time just prior to the onset of chemical addictions in previous research (Mullen & Hammersley 2006; Pretlow 2011),

The Brief COPE (Monzani et al. 2015) is an abridged version of the full COPE questionnaire, using 28 questions (See Appendix 6) Brief Cope Questions and their relationship to coping strategies) to measure 14 theoretical coping responses with each coping style having 2 questions. Cronbach's alpha has been used to test validity of Brief COPE with medical students (Yusoff 2010) and with adolescents (Yusoff 2011), both of which found it to be a valid and reliable instrument, with medical students Cronbach's alpha was .85 and with adolescents it was 0.83. This questionnaire uses a 4 point Likert scale from 1 = I haven't done this at all, 2 = I've done this a little bit, 3= I've done this a medium amount and 4= I've done this a lot.
The coping styles are as follows: Self-distraction, Active coping, Denial, Substance use, Use of emotional support, Use of instrumental support, Behavioural disengagement, Venting, Positive reframing, Planning, Humour, Acceptance, Religion and Self-blame.

WHO QoL BREF

The final questionnaire is the WHO QoL BREF, which was presented as part of the current day part of the study. This study follows on from Hibbert and Best (2011) study of problem drinkers in recovery, in that it asks the same questions to participants with a wider variety of addiction experiences than alcohol alone. The WHO Qol BREF has 28 questions and is the same in length as the Brief COPE. For population norms by age, research by Hawthorne et

al was used to provide a reference point for other reasearchers to use to help interpret their findings (Hawthorne et al. 2006). WHOQOL Brefa has been found to be to be a reliable and valid assessment tool with Chinese medical students, as determined through Cronbach's alpha (Zhang et al. 2012)

WHOQOL-Bref stands for the World Health Organisation Quality of life questionnaire, brief version (The WHOQOL Group 1996). See Appendix 5 for WHOQOL-Bref questions and their relationship to the domains. WHOQOL Bref has been used previously in addiction research with alcoholics, comparing different lengths of recovery (Hibbert & Best, 2011) WHOQOL Brefa has been found to be to be a reliable and valid assessment tool with Chinese medical students, as determined through Cronbach's alpha (Zhang et al. 2012)

WHOQOL-Bref examines 6 areas of life. Question 1 and 2 are stand-alone questions and relate to a person's overall perception of their quality of life and their overall perception of their health. The other four areas are referred to as domains and are calculated as average of scores; physical health (7), psychological health (6), social relationships (3) and environment (8). All questions are measured on a 5 point Likert scale, with various wording according to the question. The data was converted as described in Appendix 7. For questions 1 (overall quality of life) and 2 (overall health) the scores range between 1 and 5.

The final question on the survey asks if the participant would like to add anything about the survey, or comment on addiction or recovery and allowed 250 words for the participant to express themselves if they wished. This was added to see if any participants wanted to add any context to the survey.

Data collection

Data was collected online via Qualtrics and promoted via Facebook using a specifically produced Facebook page. Participants were required to be in recovery from one or more addictions and a minimum of 18 years old. For this study three previously validated questionnaires utilising Likert scales were selected: PANAS X (Bagozzi 1993; Watson and Clark 1994), which assesses positive and negative affect, BriefCOPE (Monzani et al. 2015), which assesses coping styles and WHOQOLBref (The WHOQOL Group 1996; Kruithof et al. 2018), the brief version of the World Health Organisation's Quality of Life tool. PANAS was selected due to its previous use with addiction in relation to emotional dysregulation (Barahmand et al. 2016), BriefCOPE was selected as coping has been highlighted as an issue with links to addiction in study 1, WHOQOLBref was selected as it has been used previously in addiction recovery research with recovery times up to of 5 years (Hibbert & Best, 2011).

The study asked people to answer the questions reflecting on two time periods of their life, aged 15 and currently. The age of 15 was selected as studies indicate the earliest use of substances are: alcohol, 13.43 to 15.24; heroin 17.62 to 18.89 and cocaine 17.24 to 19.61 (Mullen and Hammersley 2006). This age is also relevant to the phenomena of the reminiscence bump which shows stronger recall in adults of all ages for the time between 15 years and 28 years. It has been theorised that this is the time period where individuals experience most adult 'firsts' e.g., falling in love, first sexual experience, first home (Luchetti and Sutin 2018; Munawar et al. 2018).

The questionnaires were presented in random order (current or adolescence) to prevent selection bias and accidental bias that could be present if all questionnaires were presented in the same order. For age 15, participants completed the PANAS X and BriefCOPE, for the present they completed PANAS X and WHOQOLBref. Although PANAS X was presented for both time frames, as it was seeking variations in feelings between pre-addiction and recovery, BriefCOPE was only presented to the adolescent age group. This relates to the research into addiction which highlights coping as a reason for drug use. WHOQOLBref was only presented for the current time frame as it was seeking further evidence to support and extend the Hibbert and Best research (2011). Both time frames consisted of 82 questions or 164 questions in total excluding demographic information, making the total time needed for the completion approximately 20 minutes. Including all questionnaires for both time frames would have increased the expected time to potentially over half an hour possibly reducing the number of participants who completed it. ANOVAs were used to analyse the data as results needed to compare both addiction type and gender to identify significant results.

Analysis

Descriptive data was compiled to see the range of data collected in terms of addiction types, number of addictions individuals reported experiencing, age of participants, length of recovery, age at which they came into recovery and gender.
The questionnaires were analysed quantitatively in accordance to their design recommendations.

Summary

This methodology consists of two inter-related studies, the first being a thematic analysis of readily available secondary data to explore relevant themes from the writing of people in recovery from alcohol, drugs and food disorders. These were obtained from literature associated with 12 step fellowships (Alcoholics Anonymous, Narcotics Anonymous and Overeaters Anonymous) and selected due to the readily available nature of the data.

The second study being quantitative data collection, online, via previously validated questionnaires to look for support for the themes from study 1 and look to extend research on the similarities and differences between addictions and genders and find further support for the idea of recovery being a process of increasing improvements over time.

Chapter 5: STUDY 1

Introduction

This study uses thematic analysis on secondary data sources. Overwhelmingly the study of addiction is done on a single addiction rather than multiple or cross addictions, it is often on a single gender and usually quantitative. For these reasons a thematic analysis was selected on readily available data not provided for this research. This was done to try and identify themes from those who have suffered from an addiction and were outside of those currently being studied.

Overview of Data

There are some basic differences between the experiences of these people in recovery. The most obvious is the general relationship between the addict and the addictive substances. With food addictions the addiction is between the person and an activity essential for life, making the exact time of onset of addiction difficult to establish. In recovery, many people who have experienced substance addiction can often identify addictive behaviours around food from earlier in their lives: 'as a small child I found I could ease my pain with food and here my drug addiction began.' (Narcotics Anonymous 2008). Alcohol is generally acceptable in western society and readily available to all adults. To teenagers, alcohol may be seen as a 'rite of passage'. Drugs of addiction are not as socially acceptable (heroin, opioids, cocaine and its derivatives) and are legally prohibited. Drugs of addiction may be available in every town in the UK, via friends, acquaintances, work or social activities, but are not readily available as they are not available for sale through retail outlets. To access drugs of addiction an individual needs to know someone who uses something. For these reasons, the delineation between substances and recognition of the onset of addiction is different in each case.

There is much debate around cannabis, its derivatives, its social acceptability and potential as a substance of addiction. Due to this controversy, it has been excluded from this research except where it is mentioned in passing in relation to a different problem.

It must be noted that all these texts were submitted by individuals who attend 12 step meetings and are hoping to 'carry the message' to encourage others to attend 12 step meetings to overcome their problems. This may influence the way the stories have been written, people may exaggerate how bad their addiction was, oversimplify events or fail to mention any good times they experienced, especially as space is so limited for each story. However, they also may be driven to be more honest, to really consider what they are writing, to examine their own experience. As all the stories are reviewed by a committee of

people in recovery before being included in the relevant books, they would be expected to have a certain amount of veracity within them.

DATA ANALYSIS

Thematic analysis was used to analyse the data (Braun and Clarke 2006; Braun et al. 2022; Byrne 2022)

Phase 1 – Familiarization

The researcher had previously read all three books during her recovery, as part of her own recovery journey and for work purposes. For the purpose of this study, all the essays that fitted the criteria were actively read again without notes being taken, up to the point where the individual's addiction was clearly demonstrated. Each selected essay was read repeatedly to begin to understand the individual's perspective on their life, notes were taken, and extracts highlighted if they contained expressions of thoughts feelings or beliefs. Initially all feeling, thought and belief words, phrases and sentences were highlighted. These accounts were reminiscent of the researcher's past, not in the events, but the experience of self and the world. The researcher noted areas of both overlap and differences with her own experience. Overlap was obvious with essays from Narcotics Anonymous, however there were striking similarities with essays from Overeaters Anonymous, despite the researcher having never experienced an eating disorder, especially in the areas of hiding the reality of life experiences. Unlike many drug addicted people, the researcher held down full time employment whilst using, until six months before coming into recovery, making it essential to hide the reality of day to day life from her employer to maintain employment.

Phase 2 – generating Initial codes

Initial codes were developed semantically, by listing the overriding thought, feeling or belief expressed. In many cases a data extract would highlight two or more initial codes in one phrase. For example, 'Compulsive overeating is a disease of isolation, and my paralysing inability to call was part of my illness' (Overeaters Anonymous 2014, Line no. 423) identifies compulsion, isolation and an inability to communicate. Thought was given to what size a data extract should be, with the decision that individual words would be counted. This is because the essays needed to be short to be included in the book, meaning the writer was trying to express themselves in as succinct a way as possible so the inclusion of any word was potentially important. For example; 'I began restricting, starving, overeating, compulsively exercising, bingeing and purging up to 15 times a day, starving between those times, exercising like a maniac, hating myself, isolating, and living in terror of people.' (Overeaters Anonymous 2014). This resulted in some phrases or sentences being included under multiple codes.

Looking at the data for latent coding brought to mind for the researcher the level of pain and misery these individual essayists expressed about their lives from the earliest times. The researcher could identify with this. These essays do not explicitly contain descriptions of abuse and this cannot be inferred from the essays either, however this suffering appears to predate the addiction, possibly supporting the idea of Gabor Maté that addiction is not the problem but the solution for individuals for the pain of existence (Maté 2018).

Initially the codes were generally grouped by feeling, thought and belief words, as the question to be answered by this study related to the commonality of these across addictions.

Phase 3 – Generating Themes

These initial codes were then grouped together under themes (Appendix 4) for example: afraid, terror, anxiety, scared, frightened, terrified and nervous were grouped under the heading of **fear.** For each theme, decisions were made about the scope of the sentiment being expressed. For example, with **fear** any word associated with **fear** was included, whereas for **negative feelings towards the self** only self-directed expressions of negativity, self-hate and expressions of personal inadequacy were included. This was repeated until researcher felt that as far as possible, each theme had discrete boundaries that were easy to convey. Each of the themes were included as they communicated something in relation to the research question. All but one of the themes expressed negative experiences, the one exception was the theme on perceptions of addiction. Here the sentiments expressed were dichotomous, with people expressing both love and hate for their addiction, aware that it gave solace whilst also creating more problems. In this theme there are expressions of understanding the temporary nature of the relief that using brings, an awareness of the trap of active addiction. These are the data items the researcher found most painful, as from experience this is the place in addiction where there is least hope.

Phase 4 – Reviewing potential themes**.**

Themes that contained more than one original code were grouped by the emotion produced, for example – feeling different or wrong were linked in that both could be described as feeling personally uncomfortable, similarly emotional pain and inner conflict were linked in a theme as the two are closely related, even grief can contain inner conflict encapsulated by the phrase: ‘if only’. All fear words from anxious to terrified were linked together as fear as this is their root emotion. The research question was: Is it possible to identify commonalities across differing addictions regarding affect (feeling, thought, belief) regardless of addiction or gender? Therefore, each theme was compared to the question to see if it added anything to this conversation, and its usefulness was considered. Generally, only one theme could be said to be thin, that being the theme of shame, however it was included as shame is a well-documented experience in later addiction and it was interesting to see how little it emerged in the early stages.

On reviewing the themes, it became apparent that there were two broad categories. One group related to the internal emotional state of the essayist: **feeling different/wrong**, **emotional pain/inner conflict**, **negative feelings towards the self**, **fear**, and **shame**. These emotional states, excluding **shame**, were indicated at an early stage of the data items, **shame** being mentioned later (see figure 3). The second group could be described as coping strategies, used to cope with the internal emotional states; **using**, **obsession**, **wanting to escape**, **hiding aspects of self**, **control**, **anger** and **isolation**, and were generally found in the data items after expressions of the group one themes (see figure 4). This was an unexpected finding but led to the idea that the group one themes were underlying issues and the group two themes were the methods individuals used to try to cope with the underlying issues. This again gives credence to the idea of Gabor Maté that addiction is actually the answer to a previous problem rather than the original problem (Maté 2018) or the idea of the fragmentation of society leading individuals to feel dislocated, isolated and they seek relief (Alexander 2008). Because of the distinct differences between the two types of themes, two thematic diagrams were produced. Generally, research with addiction focuses on the coping strategies with limited research being carried out into the underlying feelings, probably because these are far more subjective in nature.

The most common themes identified were **fear** and **feeling negative towards oneself**. It is possible to suggest that if a child feels afraid and **negative towards themselves**, then **inner conflict** and **feeling different** to everyone else is to be expected. Other themes can be viewed as the effects of these feelings, trying to cope, although the word 'cope' Is rarely used, Various means of coping such as **control**, **escaping**, **obsession** and **using** all apparent in the data items and this can be further examined in the second study.

Phase 5 Defining and naming themes.

In this phase data items were selected that represented each theme from the full list of data items (Appendix 4), to give a flavour of the scope of each theme. From this the Theme Definition section below was created. The themes themselves are presented in an illustrative manner. The researcher felt that the level of suffering expressed in the data items speaks for itself and that further analysing them would add nothing and possibly detract from the feelings, thoughts and beliefs being expressed by the essayists themselves. The experiences shared in these pre or early addiction essays highlight the idea that becoming involved in mood altering behaviour is seen as an escape from something more unbearable, described as more akin to the theories of Maté and Alexander than to the theories of the medical model.

The themes expressed in the strongest terms: Feeling different/wrong, experiencing emotional pain/inner conflict, negative feelings towards self and fear.

Negative feelings towards self could be divided into two; inferred from outside of the self, and internally generated both resulting in a negative internal- dialogue. Fear also had two distinct sub themes; fearing things outside of the self and fearing being found out with the implication that to be found out is to be rejected.

Other themes that were distinctly shown could all be categorised as themes related to coping. These themes included: using to cope, control and anger, which showed links to each other, isolation, obsession, wanting to escape – from both one's own feelings and other people, and hiding aspects of the self – both feelings and behaviours.

Negative feelings towards the self

This theme includes a range of **negative feelings** ranging from such things as expressions of self-hate to expressions of personal inadequacy. These **negative feelings** were the most common, with the data items providing 33 examples. All three fellowships had multiple examples in this theme. These feeling expressed could be expressed in a mild way; 'I believed I was not good enough.' (Overeaters-Anonymous 2014) but were most often described in very strong terms; 'My self-hate, though was rampant.' (Overeaters-Anonymous 2014)

There are two main sub-themes. The first is feelings that have been inferred from the outside world; 'Growing up, we believed that just being a loving person wasn't enough; we had to excel to be worthwhile.' (Overeaters-Anonymous 2014) On several occasions the inference was from some form of religious teaching; 'I believed in God, but he was disgusted by my gluttony in a world where people were starving.' (Overeaters-Anonymous 2014); 'So I came to the conclusion that I was bad and God knew I was bad, so God make me handicapped to punish me.' (Alcoholics-Anonymous 2008)

The second sub theme is negative feelings that seem to have been internally generated, possibly from an individual's interpretation of the external world; 'My primary abstinence is not from compulsive food categories but from thoughts like; 'You are fat. You are not lovable until you look like this model. You don't deserve to enjoy your food. You are bad, bad, bad!'' (Overeaters-Anonymous 2014).

Negative feelings towards the self could be generated in a loving environment; 'I believed that I was unusually lucky to have a family that loved me, but that I didn't really deserve one.' (Narcotics-Anonymous 2008).

There is a recognition that self-hatred appeared to be present before the onset of addiction; 'After 25 years in the program, I began to see that self-hatred was my first addiction. I compulsively put myself down.' (Overeaters-Anonymous 2014)

There is evidence of the **negative feelings towards the self** being hidden, which directly relates to the theme of **hiding aspects of self**; 'Most people thought I looked healthy. But I

felt like a worthless, lonely, desperate cow.' (Overeaters-Anonymous 2014) 'If you saw who I really was, you would turn away in disgust.' (Alcoholics-Anonymous 2008)

The **negative feelings towards the self** can be so strong that extreme measures can be sought; 'I thought I was evil and went to a priest for a prayer to remove the evil.' (Overeaters-Anonymous 2014)

In all the situations the over ridding feeling is of the **pain or inner conflict**, related to some perceived personal inadequacy 'I was not good enough, and I hurt.' (Alcoholics-Anonymous 2008).

Negative feelings towards the self is the most commonly expressed theme and the majority of examples show a disdain for the individual by the individual. There is much research investigating negative self-concept and its potential role in addiction (Luoma et al. 2013; Blevins et al. 2018; Chacón Cuberos et al. 2018), along with its potential as a risk factor for late adolescence (Mason et al. 2009) As an ongoing emotion, this is dreadful to experience according to the addicts' own use of language, the pain of living inside the same skin as a person you hate. This theme links to the other overarching themes of **inner pain**, **fear** and **feeling different** and runs throughout life from early childhood and into addiction.

Fear

This theme includes many shades of **fear** including: feeling afraid, feeling terror, through to feeling scared, frightened, to being anxious or nervous. Linguistically this wide range of emotions are all rooted in **fear**.

All the data items come from a time before the addiction to chemicals was evident, which might suggest that **fear** might indicate some form of disposition towards an addiction to which an individual is vulnerable.

Fear is referenced in two ways, giving two sub-themes. There is **fear** of things outside of the writer: 'I developed into an adult woman terrified of the world around me.' (Alcoholics Anonymous 2008), or less dramatically 'I was actually very nervous and insecure around people.' (Alcoholics Anonymous 2008).

The other is internal **fear**: 'I was always afraid I wasn't good enough;' (Overeaters Anonymous 2014). Other statements imply **fear** as a life encompassing emotion; 'I reacted to life with **fear**, anxiety and aggression.' (Overeaters Anonymous 2014), 'My day would end with exhaustion, **fear**, demoralisation and despair.' (Overeaters Anonymous 2014). The level of **fear** expressed in many of these data items provides an indication of the experiences before addiction and possibly insight into the issues around treating it.

Like self-hate, **fear** is difficult to live with. Most of the data items in this theme express high levels of **fear** and often as an early experience; 'Of course I am talking of an intense **fear** of

life. I cannot remember feeling the simplicity of being a child.' (Narcotics Anonymous 2008). Here again fear may be a drawn towards addiction rather than a result of it.

Feeling different / something wrong

Feeling different or wrong is referred to in 23 excerpts. This outsider feeling appears to start at an early age: 'Watching all the other children laughing and playing and smiling, and not feeling like I could relate at all. I felt different. I didn't feel I was one of them. Somehow, I thought I didn't fit in.' (Alcoholics Anonymous 2008). This is a feeling which seems to grow in life and through addiction; 'In the beginning I felt only that I didn't fit in; by the end I was a complete outsider.' (Overeaters Anonymous 2014).

Another common element is the feeling of not having been given all the information for life: 'I always felt as if everyone else knew what was going on and what they were supposed to be doing, and my life was the only one delivered without an instruction book.' (Alcoholics Anonymous 2008). This describes a feeling of being ill equipped to deal with life, but thinking others are better equipped.

Emotional pain or inner conflict

Emotional pain or inner conflict is another common theme, occurring 22 times in the data corpus. This theme appears early in life: 'The fact of the matter was, I was miserable from early on in my life.' (Alcoholics Anonymous 2008). Achieving goals seems to have no impact or make things worse: 'The thinner I became and the more I achieved, the worse I felt.' (Overeaters Anonymous 2014). External love seems ineffective in helping with the inner pain: 'But their love for me was not a substitute for loving myself; it didn't fill the emptiness.' (Alcoholics Anonymous 2008) this suggests a need for love, that a lack of self-love is denied to the individual, in other words being unable to love oneself results in being unable to accept the love from someone else.

Emotional pain appears to be a key theme, and to be present much earlier in life than the coping themes, potentially suggesting it as an early indicator of possible later problems. It links to the key theme of **negative feelings towards the self** and the coping themes of **isolation, hiding**, and **wanting to escape**. There is evidence that the **emotional pain** increases as the chosen addiction grows; 'As the feelings of hopelessness and depression progressed, so did my drinking. Thoughts of suicide came more and more frequently. It felt as if things were never going to change.' (Alcoholics Anonymous 2008)

In all example the over ridding feeling of the **pain or inner conflict** is related to some perceived personal inadequacy 'I was not good enough, and I hurt.' (Alcoholics Anonymous 2008).

This is a theme where cross addictions are mentioned, where an individual moves from one to another in the search for relief. ‘As a small child, I found out I could ease pain with food, and here my drug addiction began,’ (Narcotics Anonymous 2008), demonstrates how an early experience with eating to alleviate pain progressed into an addiction to drugs later in life. ‘As I got older, my addictions grew to include drugs, alcohol and sex. If something felt good, I used it until it didn’t work anymore,’ (Overeaters Anonymous 2014) is an example of a full range addictions being experienced by one individual, whose story ended up in the Overeaters Anonymous book. Here there is a clear progression of addictions, always looking for a way to feel better, then pursuing it until it no longer worked.

The following four themes were expressed in the strongest terms: Feeling different/wrong, experiencing emotional pain/inner conflict, negative feelings towards self and fear. They were experienced at the earliest time expressed in the data corpus and they all involve painful emotions that are difficult to live with. All examples predate the individuals’ obvious addictions.

Using as coping

The theme of **using** as coping occurred in 26 excerpts. This category is mainly around using something to change feelings and demonstrates the early part of addiction where the substance or behaviour appears to help alleviate the problems being experienced. Writers describe moving from one addiction to another as one no longer works, giving a clear message that the **using** is to cope: ‘As a small child, I found out I could ease pain with food, and here my drug addiction began.’ (Narcotics Anonymous 2008). Trying to cope comes in many forms and other themes that are related to coping are; **isolation**, **obsession**, **control**, **trying to escape**, **anger** and **hiding**.

Most obviously in this theme is the idea that whatever the subject of the addiction, (food, alcohol, drugs) it always had the highest priority in the individual’s life: ‘I had a wife and two kids I loved, a house and a car, but food always came first.’ (Overeaters Anonymous 2014) which is akin to the craving described by Maté (Maté 2018). ‘The bottle was my friend, my companion, a portable vacation. Whenever life was too intense, alcohol would take the edge off or obliterate the problem altogether for a time.’ (Alcoholics Anonymous 2008). These show the importance of the **using** strategy. The chosen coping instrument must always be close at hand, until in the fullness of addiction the coping strategy itself becomes another problem.

Coping is linked to **fear** and specifically trying to overcome or hide **fear**; ‘They didn’t understand what the food did for me, it allayed my **fear**s and boredom, telling me everything would be okay’ (Overeaters Anonymous 2014), ‘Alcohol helped me to hide my fears; the ability to converse was almost an almost miraculous gift to a shy and lonely individual.’ (Alcoholics Anonymous 2008).

Using is linked to an attempt to **control** emotions: ‘Taking the edge off life required more and more food, and my effort to eliminate all uncomfortable emotions blocked my ability to feel any emotions’ (Overeaters Anonymous 2014).

Escape is linked to **using**. In ‘I first used fantasy to get out of myself’ (Narcotics Anonymous 2008) the individual identifies themselves as the problem to be coped with by using **escape** into fantasy. The location of the data item in the Narcotics Anonymous Basic Text shows this eventually changed to taking narcotics.

Obsession (including self-obsession, being obsessed, compulsion)

Reference to **obsession** and **compulsion** occurred in 21 excerpts, As stated in the NA Basic Text ‘Our whole life and thinking was centred in drugs in one form or another – the getting and using and finding ways and means to get more. We lived to use and used to live.’ (Narcotics Anonymous 2008)

First, there is **obsession of thought**: ‘No matter how much I was able to keep food from entering my mouth, there was nothing to stop it entering my brain. I thought about food twenty-four hours a day, seven days a week.’ (Overeaters Anonymous 2014) then, there is **compulsion of thought**; ‘I compulsively put myself down.’ (Overeaters Anonymous 2014) the difference being that obsession of thought feels unstoppable, an inability to change the path of thinking and compulsion of thought is more like a regular habit of thinking such that whenever a particular topic comes to mind the same thought or set of thoughts appears.

There is **obsession of behaviour (compulsion)**: ‘I began restricting, starving, overeating, compulsively exercising, bingeing and purging up to 15 times a day, starving between those times, exercising like a maniac,’ (Overeaters Anonymous 2014). The following extract demonstrates a clear relationship between the thinking and the behaviour: ‘I never knew which came first, the thinking or the drinking. If I could only stop thinking, I wouldn’t drink.’ (Alcoholics Anonymous 2008).

There are several data items in this theme that identify a relationship between addictions: ‘Sugar and refined carbs became for me what alcohol is to an alcoholic. I was addicted body and soul.’ (Overeaters Anonymous 2014).

Evidence suggests how **obsession** and **compulsion** can delay asking for help, much like feeling different; ‘Compulsive overeating is a disease of isolation, and my paralysing inability to call (telephone) was part of my illness’ (Overeaters Anonymous 2014);

‘I realise now that this phase of my development had been arrested by my **obsession** with self, and my egocentricity had reached such proportions that adjustment to anything outside my personal **control** was impossible for me.’ (Alcoholics Anonymous 2008)

Obsession can be seen as another coping strategy, to obsess on something is an avoidant coping strategy, preventing the individual from looking at or dealing with the actual issue causing difficulties.

Hiding aspects of the self

References to **hiding aspects of the self** occurred in 20 excerpts. With AA data items this appears to link with the theme of **isolation**. Possibly this is because it would be difficult for an individual to feel connected if they are **hiding aspects of themselves**. This occurs in two different formats and for different reasons, resulting in two sub-themes, hiding feelings and hiding behaviour.

The most common form of **hiding aspects of the self** relates to how the individual feels; 'I clamped a smile on my fat face, but I was crying and dying inside.' (Overeaters Anonymous 2014), 'I felt it was most important for my outside to pass as normal and for others not to see the mess I was inside.' (Overeaters Anonymous 2014), 'It did not matter to me what lengths I had to go to in order to gain love and approval from everyone. Up went the false front with more dishonesty and deceptions. I was to spend many years of my life trying to be something that I was not.' (Narcotics Anonymous 2008, loc. 2130). There is **hiding aspects of the self** around the behaviour of addiction and **using**; 'I would take any opportunity to be alone to eat my binge foods, throw up, then eat more, only to throw up again. Then I would have to replenish the food so no one would find out.' (Overeaters Anonymous 2014).

Hiding aspects of the self is not dependent on social standing. There are examples of high achievers in this situation; 'I was a father. Husband, taxpayer, homeowner. I was clubman, athlete, musician, author, editor, aircraft pilot and world traveller. I was listed in Who's Who in America as an American who, by distinguished achievement, had arrived. The other side of the coin was sinister, baffling. I was inwardly unhappy most of the time' (Alcoholics Anonymous 2008). Hiding aspects of the self takes place to prevent rejection; 'I knew that if others discovered who I really was, they wouldn't like me and I would be left alone, worthless and alone.' (Alcoholics Anonymous 2008). Hiding is linked to the key themes; **feeling different/wrong**, **emotional pain/inner conflict**, **negative feelings towards the self** and **fear** in that there is a desire to hide the emotional issues. Hiding is another coping strategy, and links to other coping themes including wanting to **escape** and **isolation.**

Isolation

Isolation incorporates loneliness. **Hiding aspects of the self** and **isolatio**n are linked, with isolation being mentioned on 15 occasions.

Isolation encompasses feeling alone, lonely and empty. Although **isolation** is mentioned quite frequently it is an avoidant coping technique 'I had no tools for dealing with life. I turned inwards and became more and more isolated.' (Overeaters Anonymous 2014).

Isolation is given as an avoidant coping strategy for drinking 'My cure for drinking was isolation. I would get up, got to work, come home, watch TV, and go to bed. It got to the point where I couldn't remember anything good that ever happened. I couldn't imagine anything good ever happening in the future. Life had shrunk down to an endless, awful now.' (Alcoholics Anonymous 2008). This demonstrates how ineffective **isolation** is for dealing with drinking. However, if this person were to take the Alcohol Use Disorder Identification Test 'AUDIT' (Bush et al. 1998) or Severity of Alcohol Dependence questionnaire 'SADQ' (Meehan et al. 1985), depending on how long this abstinence had lasted, it might indicate that there was no alcohol problem, even if they were in great distress as a result of not drinking. As such this could demonstrate that addiction is not just about substance or behaviour.

However, **isolation** is not the only way in which loneliness is mentioned; 'I had a sister and brother with graduate degrees who served as excellent role models, so it's difficult to explain why I was drawn to the streets. Maybe it was the loneliness and emptiness I felt as a child.' (Narcotics Anonymous 2008), although this individual demonstrates feeling **isolated** from his peers.

Isolation is linked with the theme of **feeling different** and possibly **emotional pain**; 'As a child I felt isolated from my family and community and never really fit in with any particular component of society.' (Narcotics Anonymous 2008). Isolation as a theme directly links to Alexander's idea of social dislocation and isolation (Alexander 2008;)

Escaping / wanting to escape

Wanting to escape occurred in 12 excerpts. NA members refer to **wanting to escape** more frequently than other fellowships, which may indicate a tendency towards escape as a particular coping strategy within drug addiction. However, it is important to note that other fellowships mention escape, making it a universal theme.

In every case it is an avoidant coping strategy. It is mentioned in relation to the earlier times in life, prior to the onset of addiction and has two interlinked manifestations: **wanting to escape** from feelings and **wanting to escape** from others. The following data item, which predates the active part of addiction, demonstrates **wanting to escape** from feelings; 'As far back as I can remember I have needed to escape from myself and my feelings. As a child I lived in the world of books and fantasy in an effort to escape from emotions.' (Narcotics Anonymous 2008). Regarding **wanting to escape life**, the following individual stated; 'Thinking back I must have taken one look at life and decided I didn't want any part of it.' (Narcotics Anonymous 2008).

Wanting to escape as a coping mechanism pre-dates active addiction, in that individuals are using various ways to escape issues before addiction. This level of desire to escape coupled with the experience of an addictive substance or behaviour makes it seem less

surprising that addiction occurs, as evidenced by the early experiences of an addictive substance; ‘Excess food was my ticket to oblivion, and I used it every day’ (Overeaters Anonymous 2014); ‘Drinking released me from the suffocating fear, the feelings of inadequacy, and the nagging voices at the back of my head that told me I would never measure up.’ (Alcoholics Anonymous 2008). Although these data items do not specifically mention escape, both the reference to ‘ticket to oblivion’ and ‘release’ imply escaping.

Issues around control (including trying to control self, others or addiction)

Another coping strategy is that of **control.** It is referenced in 11 excerpts. There are examples of **control**ling behaviour to overcome addiction: ‘My cure for drinking was isolation. I would get up, got to work, come home, watch TV, and go to bed. It got to the point where I couldn’t remember anything good that ever happened. I couldn’t imagine anything good ever happening in the future. Life had shrunk down to an endless, awful now.’ (Alcoholics Anonymous 2008). There are also examples of trying to **control** oneself: ‘I began restricting, starving, overeating, compulsively exercising, bingeing and purging up to 15 times a day, starving between those times, exercising like a maniac, hating myself, isolating, and living in terror of people.’ (Overeaters Anonymous 2014); and examples of trying to **control** multiple areas of life: ‘I was changing jobs, changing doctors, changing drugs, trying different books, religions, hair colours. I moved from one area to another, changed friends and moved furniture. I went on vacations and also remained hidden in my home – so many things through the years.’ (Narcotics Anonymous 2008,). Finally, there is trying to **control** others, usually manifested through troublesome behaviour that can cause others to try to pacify, to walk on eggshells around the addict; ‘Control was the name of the game. I tried to control everyone in our little family and outside,’ (Narcotics Anonymous 2008). In all cases this is not slow and calculating **control** but **control t**hat sounds intense and ineffective, trying to find a solution before admitting what the problem is. **Control** links to other coping themes, **isolation**, **anger** and **hiding aspects of self**. **Control** is one way to prevent others from coming between an individual and their addiction substance or behaviour.

Shame

Shame, which occurred in 5 excerpts, is a common experience in addiction, though not a frequent theme in early experiences. **Shame** increases during addiction as more and more damage is done both to the individual and those around them. It is important therefore to recognise the starting point of this theme, despite most references made to **shame** being later in the addiction journey and outside the remit of this analysis.

A common theme with **shame** is around comparison. The individual compares themselves negatively to those in their vicinity resulting in an unfavourable conclusion and **negative feelings towards the self**; ‘I had classmates whose names were household word that connoted wealth. I was ashamed, ashamed of my family, and ashamed of myself.’

(Alcoholics Anonymous 2008), “My issues with food and body image started in childhood. Some of my earliest and most vivid memories deal with the shame I felt around my body and my eating.” (Overeaters Anonymous 2014, loc. 2160).

In every case the subject has compared themselves to some outside ‘other’ and has come off badly in the comparison resulting in the feeling of shame. In contrast with the five occurrences of shame in early life, guilt is only mentioned once, when writing about attending the first OA meeting: “Guilt and shame were released” (Overeaters Anonymous 2014, loc. 830). This might suggest that shame is a more prevalent emotion in addiction than guilt, with the difference being that guilt relates to something an individual has done or not done, whereas shame relates to negative feelings around who they are.

Anger

Anger and resentment occurred in only 3 excerpts. There was no mention of anger in the AA excerpts, even though **anger** is often associated with alcoholism (Parrott and Giancola 2004; Norström and Pape 2010). It can be related to coping; ‘Anger became my best defence and, at the age of fourteen I found drugs.’ (Narcotics Anonymous 2008). It can be a feeling aimed at others: ‘I hated my body; couldn’t stop eating compulsively; had no friends or boyfriend; was mean and nasty to my family; and was full of fear, resentment and self-pity.’ (Overeaters Anonymous 2014, loc. 2353)

As for **shame**, **anger** is mentioned much more frequently later in addiction in relation to seeking people or things to blame for their situation. This is outside the remit of this research.

Perceptions of addiction

The last theme is **perceptions of addiction**. It highlights how people viewed their substance or behaviour of choice, highlighting the dichotomous relationship with the addictive substance; ‘Food was my only friend and worst enemy’ (Overeaters Anonymous 2014).

Perceptions of addiction are mentioned 20 times in the data corpus. Many of these are from OA possibly because a perception of overeaters is of being merely greedy, needing only to eat less, rather than people in the grip of an addiction, meaning overeaters therefore consider their **perceptions of addiction** more frequently.

There are negative and positive perceptions. Positive perceptions include such statements as; ‘Food was my great solace and reward, the sweetest thing in my life.’ (Overeaters Anonymous 2014). The positive perceptions are generally related to earlier experiences, when the addictive behaviour seemed to help. Negative perceptions include such things as; ‘Powerlessness over food gradually destroyed my home, career and ability to drive a car.’ (Overeaters Anonymous 2014), ‘It took me three months to realise that I was my problem and drinking made my problem worse.’ (Alcoholics Anonymous 2008).

There are comparisons between addictions; ‘Sugar and refined carbs became for me what alcohol is to an alcoholic. I was addicted body and soul.’ (Overeaters Anonymous 2014), as well as evidence of multiple addictions ‘As I got older, my addictions grew to include drugs, alcohol and sex. If something felt good, I used it until it didn’t work anymore,’ (Overeaters Anonymous 2014)

There is evidence of having a negative perception of addiction but doing it anyway. The experience of forgetting after having had a drink is not exclusive to addicts. People may go out for an evening and drink enough with friends to forget their day to day problems, but generally they return to their normal lives the following day. Sometimes people may have a short period of time using alcohol to escape from a painful experience such as a profound loss, but generally stop after a period of time. However, for someone with an addiction this is not the case. Once an individual has found a substance, the substance seems to offer more in the way of solace than it is meant to: “Early on I developed a liking for favourite foods and went to increasing lengths to get them. The benign habit of chasing a pleasing taste soon became a ritual escape from my feelings and responsibilities. My normal emotional development suffered because I demanded more from food than it was ever intended to provide.” (Overeaters Anonymous 2014, loc. 1885)

These dichotomous feelings around addictive substances and behaviour’s lend credence to the idea of addiction as a coping strategy for the pain experienced in life. Initially these people see their substance or behaviour of choice as the one solace in life, only later coming to understand the negative side of the issue. This is not generally how a disease is defined or assessed, as generally people do not like a disease at all. However, if it is a strategy for coping with either social dislocation and isolation or a way to deal with traumatic wounds, then this reaction is totally understandable. (Alexander 2008; Maté 2018)

Phase six – producing the report.

Figures 1 and 2 are thematic maps. Although multiple thematic maps are unusual it became apparent on reflecting on the codes that they formed two distinct groups, one being underlying emotions arising early in the data items and the other being coping strategies to deal with those emotions

Overall the themes together indicate a very negative mental state experienced by people who go on to suffer addictions. The strongest themes, relating to internal experiences of negative emotion. However not all emotions that were expected were mentioned.
Certain items appear to have been introjected, appearing so obvious as to not be mentioned and yet very important in the understanding of addiction, presenting a possible block to recovery if not addressed. Further, it has implications for research. For example no one in the NA data items mentions **obsession,** this could be because it is synonymous with and associated to drug addiction. It could be that addicts consider it so obvious it does not require

mentioning as **obsession** and **compulsion** are all consuming for an individual with drug addiction. Another example would be **anger** with alcoholism. None of the data items from Alcoholic Anonymous mentions **anger,** despite the societal identity of an alcoholic containing **anger.**

Another block to recovery could be **fear** (Sandoz 2002)**,** which has been linked with **hiding aspects of the self** and **feeling negative toward the self** (Luoma et al. 2013). **Feeling different** is a strong and common theme, however, it is a potential problem from the perspective of finding early solutions to the problems of addiction as it becomes imperative to form a link of understanding before sufficient trust could be built with which to facilitate change.
There is much research investigating negative self-concept and its potential role in addiction (Luoma et al. 2013; Blevins et al. 2018; Chacón Cuberos et al. 2018) along with its potential as a risk factor during late adolescence (Mason et al. 2009) when negative self-concept tends to be at its peak as adolescents move through from childhood to adulthood.

Addiction of any kind is a complex issue, and it is important to note that not everyone who uses drugs or alcohol becomes addicted, just as not everyone has a food addiction. These excerpts have been taken exclusively from individuals who have experienced addiction. In these excerpts there is little or no reference to traumatic childhood experiences, but only how the individual dealt with their life. The common themes identified in this analysis are thoughts, feelings and beliefs common to all people, not just addicts. This suggests that it is not the thought, feelings or beliefs of themselves that cause the problem but possibly such things as intensity of feeling, combination of feelings, an inability to cope in a healthy way, the age when first experienced, or a combination of some or all of these that causes the problems of addiction, or as one quote puts it; ‘It took me three months to realise that I was my problem and drinking made my problem worse.’ (Alcoholics Anonymous 2008).

The four overarching themes together; **negative towards self**, **fear**, **feeling different** and **emotional pain**, link to each other. If one feels **negatively towards self**, then **feeling different** in comparison to everyone else is plausible, and from here it could be speculated that **emotional pain** and **fear** would follow**.** Together these themes could be seen as a result of untreated stress or trauma as defined in the ICD-11 under ’06 Disorders specifically related to stress’:

> ‘Disorders specifically associated with stress are directly related to exposure to a stressful or traumatic event, or a series of such events or adverse experiences…..Stressful events for some disorders in this grouping are within the normal range of life experiences (e.g., divorce, socio-economic problems, bereavement). Other disorders require the experience of a stressor of an extremely threatening or horrific nature (i.e., potentially traumatic events). With all disorders in this

grouping, it is the nature, pattern, and duration of the symptoms that arise in response to the stressful events—together with associated functional impairment—that distinguishes the disorders.' (World Health Organisation 2018) https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/991786158

Trauma and stress during key developmental stages often result in psychological distress with potentially profound consequences through life, which results in maladaptive coping strategies and numbing (Mahoney, 2019). Types of stressful events identified in the literature review include involvement of child protection services, abuse or neglect, victim or witness of violent crime, parent substance abuse, prolonged absence of parent, divorce, death of someone close, frequent family conflict and financial problems (Murphy et al. 2012; Mahoney et al. 2019). This list of nine might not be exhaustive and might be dependent on such things as an individual's personality traits, which could determine how an individual experienced these things. The overall picture, however, is that individuals who go on to experience addiction were in some form of emotional pain, probably from childhood, and over time developed an internal life of such unending discomfort that they sought different ways to cope; **using, obsession, hiding, isolation, escape, control** and **anger**, all of which resulted in separating them from genuine connection with others. A saying within NA is that 'an addict alone is never in good company', which reflects the danger of not being connected.

There are differences in the frequency of quotes for each theme between the different fellowships. For OA the largest percentage was around **negative feelings towards the self**, for AA the largest was **fear** and for NA the largest was **feeling different**. Within OA the most common themes were **negative feelings towards the self**, **using to cope**, **emotional pain** and **obsession**. In AA the most common themes were; **fear**, **feeling different**, **hiding aspects of self** and **isolation**. Within NA the most common themes were; **negative feelings towards the self**, **fear**, **feeling different** and **wanting to escape**. There maybe reasons for these differences. First, the data corpus is not exhaustive. With larger resources including blogs and vlogs the types of data and variety of addictions may have looked different. The research was only carried out on specific literature, with OA providing twice as many data elements than the other two fellowships, probably due to the difficulty in delineating the commencement of an eating disorder. It is difficult to say how the themes would have looked with an equal number from each fellowship. A further issue is that of culture and language within each fellowship, but this does not nullify the themes identified. It could be argued that OA members identify **negative feelings towards the self** as a primary issue and tend towards **using** food and **obsession** to cope (Belgin & Fairburn 1992, Pretlow 2011), alcoholics identify **fear** and **feeling different** as the primary themes and tend towards **hiding** and **isolation** as the primary coping strategies and drug addicts identified **feeling different**, **negative feelings towards the self** and to a lesser extent **fear** as their major themes and tend towards **escape** as their primary route of coping. There may be social reasons behind

these differences based on societal perceptions of the different addictions. Food addiction has historically been perceived as eating too much and greediness rather than recognised as an addiction. It could therefore be suggested that overeaters feel badly about themselves and obsess around these issues. Alcoholics on the other hand have different societal perceptions. While drinking alcohol is socially acceptable for adults, having a problem with alcohol is something to hide from the rest of the world as it has connotations of weakness or failure (Cunningham 2012), leading to **fear**, **hiding** and **isolation**. Drug addicts are commonly portrayed as being outside of society, the source of many societal ills, building on **negative feelings towards the self** and to a lesser extent **fear** as their major issues, and tend towards **escape** as their primary means of coping (Mason et al 2009).
None of this is definitive with all addictions expressing all the overarching themes to a greater or lesser extent and using the majority of coping strategies to deal with them, it could be argued that these themes together represent areas of vulnerability to addiction.

Outside of the four main themes of **negative feelings towards the self**, **fear**, **feeling different** and **emotional pain**, only **shame** is not a coping strategy. All the main themes are mentioned in relation to early life, predating addiction, with only the emotion of **shame** appearing and growing later in addiction. The relationship between shame and addiction is well known, it has been seen as both a motivator and demotivator to change (Flanagan 2013; Snoek et al. 2021)

The overarching style of all the other themes is avoidant coping strategies, trying to supress or escape painful thoughts, feelings and beliefs so that the individual feels as though they are coping with life, or at least tricking others into believing that they are. Addiction is often referred to as using a crutch, which contains negative connotations. It is possibly more helpful to consider it as a coping strategy in that the addict has developed a way of coping whereby it is necessary to have something close at hand with which to change their feelings as quickly as possible. As a coping strategy addiction does not work long term, with the strategy eventually becoming a larger problem, but this does not mean that it was always unsuccessful. At some point the coping strategy must have helped to alleviate the emotional problems and then became the dominant strategy used increasingly in a majority of situations until the strategy itself becomes the problem, resulting in the circular pattern that is seen in addiction and directly related to the length of an addiction.

These themes highlight the difficulty of early intervention, as building sufficient trust for an individual to be receptive to change could be hampered by their **fear**, **negativity about self**, **inner pain** and **feeling different** to others, especially whilst it still appears that their chosen activity alleviates their inner turmoil to some extent.

There are ethical challenges in exploring which children go on to become addicts using longitudinal studies, especially around informed consent. However, such a study would involve many children. Estimates of the level of addiction in the particular community would

need to be obtained and a sufficient number of children included to statistically predicate that a useful number would be found in later life. For example if the addiction rate in a community was 10% and the study felt it needed a minimum of 10 addicted participants by the age of 25, then an absolute minimum of 100 children would be required to take part. Allowances would also need to be made for dropout rates, bearing in mind the idea that those who developed addiction issues might be more inclined to drop out. There would also be the question of incentives and the ethical minimum age of inclusion and expected maximum age of completion, further what would be the protocol if a participant was identified during the study as being particularly at risk from such things as safeguarding issues. Much of the behaviour expressed by these themes is hidden, making research into anything other than recovering people difficult and questionable. However, this thematic analysis has attempted to uncover some underlying issues and the way in which people try to deal with them using avoidant coping strategies.

N.B. From reading the full texts in the self-help books used to obtain the data corpus, the themes found here are resolved for the individual when coming into recovery, which is a much larger experience than merely stopping the addictive behaviour but is outside the remit of this study. It is comforting to know however that every data-extract taken from the data corpus come from a person who has subsequently found a solution to their addiction problem.

Summary

Using thematic analysis on data extracts from the Alcoholics Anonymous Big Book, the Narcotics Anonymous Basic Text and the Overeater Anonymous Brown books a total of 216 extracts were found which contained data items that related to early life experiences, either before or at the beginning of the addiction process, the data item gave some insight into the thoughts, feelings or beliefs of that person

From analysing them various themes were found. Feeling different/wrong, experiencing emotional pain/inner conflict, negative feelings towards self and fear. These were the overwhelming themes expressed in the strongest terms.

Negative feelings towards self could be divided into two; inferred from outside of the self, and internally generated both resulting in a negative self-dialogue. Fear also had two distinct sub themes; fearing things outside of the self and fearing being found out with the implication that to be found out is to be rejected.

Other themes that were distinctly shown could all be categorised as themes related to coping. These themes included; using to cope, control and anger, which showed links to each other, isolation, obsession, wanting to escape – both feelings and others, and hiding aspects of the self – both feelings and behaviours.

Bearing in mind these emergent themes, two of the questionnaires for the quantitative second study were selected. The PANAS X was selected as it directly asked about feelings, and the Brief COPE was selected to further investigate the themes related to coping. WHOQOLBref was also included to see if similar results could be found to those from previous research (Hibbert & Best, 2011)

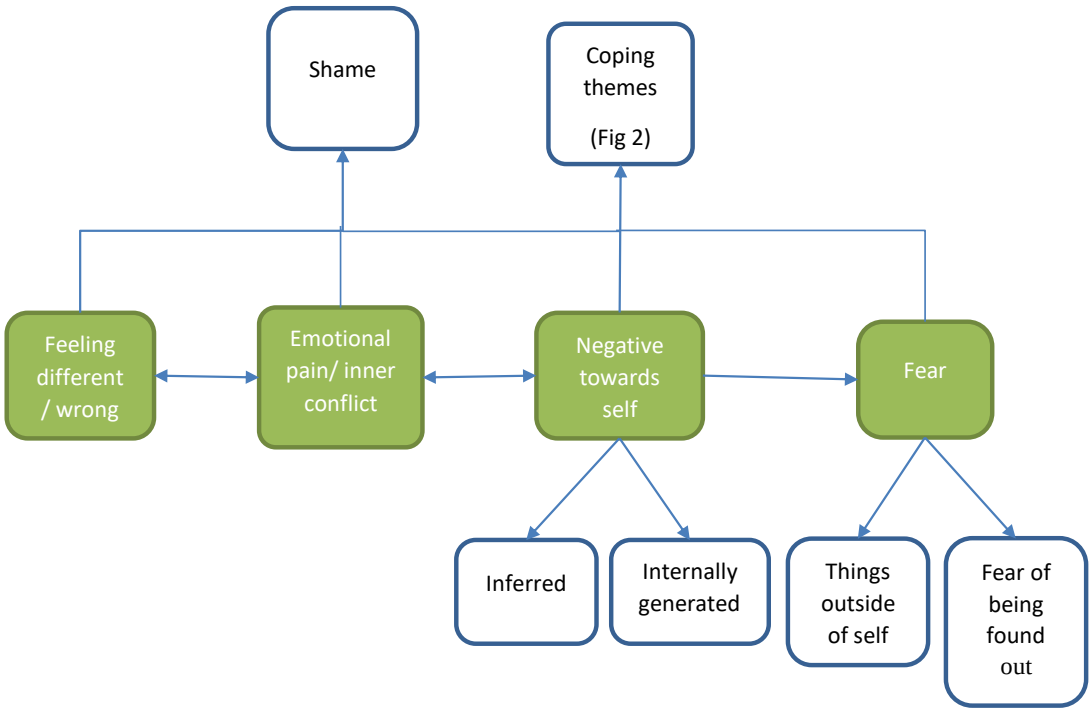

Figure 3. Thematic Map Emotional states.

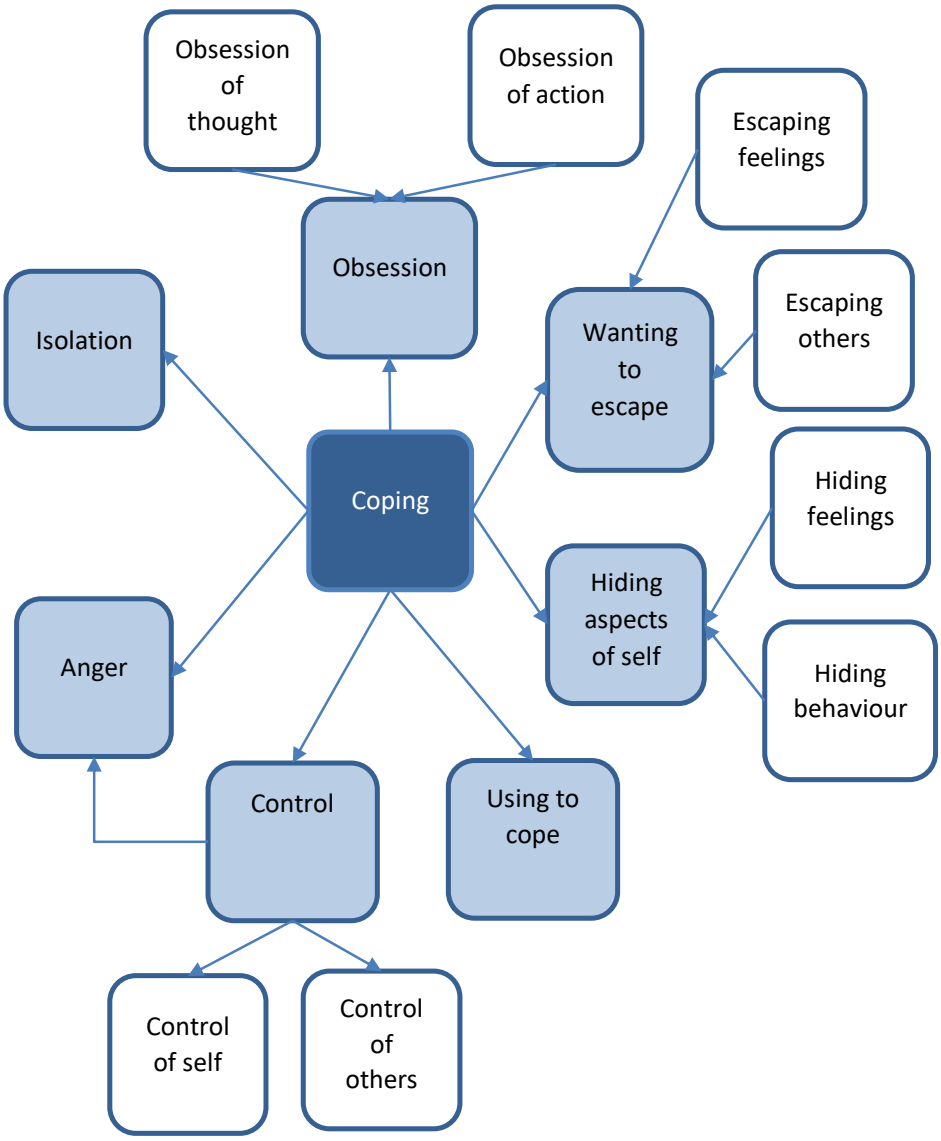

Figure 4: Thematic Map of themes relating to coping

Chapter 6: Study 2 - Analysis of quantitative data from online questionnaire

Introduction

The literature review identified that most of the research around addiction looks at circumstances surrounding addiction such as: the disease concept (Leshner 2000; Wilson and Alcoholics Anonymous 2013), attachment style (Lee et al. 2016; Wojtynkiewicz 2016; Hiebler-Ragger and Unterrainer 2019), character traits (Onuoha et al. 2016; Bora and Zorlu 2017), past events (Banducci et al. 2014; Teixeira et al. 2017), lack of certain cognitive abilities or avoidant coping (Yigitoglu and Keskin 2019). Addictions also tend to be studied in isolation, so research may look at alcohol or drugs or food, but not multiple addictions. Further, addictions are also studied by gender, generally exploring relational and cultural factors, (Birath et al. 2010; Cunningham 2012; Hernandez-Hons and Woolley 2012; Creighton et al. 2016). There is very limited research into how the individual addict experienced their own lives, addictions, and what they thought, felt and believed. This study aimed to try and address these issues, looking at single versus multiple addictions, male and female experiences and thoughts feelings and beliefs of addicts prior to their addiction and currently in recovery. The collected data was then be analysed, comparing results between addiction and gender to identify areas of similarity and difference. The hypotheses are:

1. That it is more common for people to experience multiple addictions rather than a single addiction.
2. That there will be no significant differences between addictions or gender regarding early affect.
3. Affect for all addictions and genders will be greatly improved in recovery relative to pre-addiction.
4. There will be no significant difference between addiction type or gender and no significant interaction between gender and addiction type with regards to coping.
5. There will be continual improvements over time in recovery in the areas of: physical health, psychological health, social relationships and environment.

The study was approved on 30th May 2018 by Bournemouth University Faculty of Science and Technology Research Ethics Committee (Appendix 2).

Research Questions

Due to the characteristics of the respondents to the online questionnaire it became apparent that comparison would need to be between primary alcoholics and primary addicts as these were the most prevalent types of primary addiction. The questions asked of the data were as follows:

1. Does affect according to the PANAS X categories improve from pre-addiction to recovery.
2. Are there any significant differences of PANAS X categories between males and females.
3. Are there any significant differences of PANAS X categories between drug addicts and alcoholics?
4. What are the main coping strategies individuals use pre-addiction.
5. How does perceived quality of life for people in recovery compare with normative data?
6. Is there is perceived improvement in quality for people in recovery which increases with duration of recovery?

The basic information collected on each participant included: gender, age, primary addiction, time in recovery and number (if any) of secondary addictions. The surveys asked participants to rate various items on Likert type scales from when they were 15 and from the present day (presented in random order to reduce presentation bias).

Procedure

This study was an online study, with access via the internet only. The survey was first launched via a page set up Facebook specifically for this purpose, went live on 8th August 2018, and was closed on 20th September 2018. Other invites were sent by email to any associates in the field who were not on Facebook. The Facebook page was signposted by the StreetScene Addiction Recovery Facebook page and other service providers. The questionnaires were presented via the Qualtrics system which started with participant information and consent. There was an exclusion section which stopped the questionnaire from being presented to those under 18 and those not currently in recovery from an addiction (full online questionnaire Appendix 6).

Data Analysis

Descriptive data was compiled to see the range of data collected in terms of addiction types, number of addictions individuals reported experiencing, age of participants, length of recovery, age at which they came into recovery and gender. ANOVAs were used to compare demographic information, such as addiction and gender with the mean scores from the variables from the 3 questionnaires; PANAS X for self-rated affect scores, BriefCOPE for coping styles and WHOQOLBref for quality of life indicators, looking for both significant main effects of mean scores for each questionnaire and significant interactions between both demographic data and the questionnaires. It was hypothesised that affect would improve between pre-addiction and recovery, coping strategies would be significantly similar between addictions in line with the thematic analysis, and that the domains of quality of life would improve with length of clean time.

The data type collected in the questionnaires is ordinal. Using Likert scales, which assume that intensity of feeling is on a continuum and the points offered have a meaningful order going from positive to negative, it is assumed that the intervals are equal. However because only 4 or 5 options are offered, it is probable that people will need to decide between two for the closest match, and their understanding of the words may also play a part, for example the difference between 'rarely' compared to 'sometimes'. This has implications for the data analysis. The 250 word optional final question was an opportunity for participants to provide feedback on the questionnaire, using or recovery and was left unanalysed but to give the participants viewpoint (Appendix 9). This was added as quantitative data generally does not give any indication of the participants viewpoint.

Results

Then data that was so incomplete that no analysis was practical was removed reducing the number of participants from 250 to 115. Further data elements were generated from the data provided, for example age at end of addiction was calculated from the current age minus years clean provided by the participant.

Descriptive:

After incomplete data had been removed the study consisted of 115 participants. There were 55 females (47.8%) and 60 males (52.2%). The age of participants ranged from 24 to 70 with a mean of 47.03 years (SD 9.53). The number of years clean ranged from 1 to 40 with a mean of 12.17 years (SD 8.2). These two together gave the age of coming into recovery, which ranged from 18 to 62 with a mean of 34.86 (SD 7.82). The mean age of coming into recovery for males was 35.32 (SD 6.88) and for females 34.35 (SD 8.74).

The primary addictions were alcohol by 25 participants (21.7%), drugs by 88 participants (76.5%), food by 1 participant (.9%) and sex by 1 participant (.9%). The participants with food and sex addiction were excluded from the analysis

When asked if the participant had a secondary addiction 80 participants replied yes (69.6%), many of these listing multiple addictions, as shown in Table 1.

Table 1: ***Number of addictions reported by each participant***

Nos of reported addictions	Frequency	Percentage
1	36	31.3
2	25	21.7
3	16	13.9
4	16	13.9
5	14	12.2
6	7	6.1
7	1	.9
Total	115	100.0

Frequency of the various addictions as secondary addictions are shown in Table 2:

Table 2: ***Secondary addictions by frequency and percentage***

Addiction type	Frequency	Percent of total participants (n 115)	Percent with secondary addiction (N 80)
Alcohol	56	48.7	70.0
Drugs	46	40.0	57.5
Gambling	11	9.6	13.8
Food	33	28.7	41.3
Sex	31	27.0	38.8
Internet	21	18.3	26.3
Gaming	4	3.5	5.0

Significant main effects

A univariate analysis was performed using 2X2 ANOVA between subject's analysis, to identify any differences between the independent variables 1: primary addiction (alcohol or drugs) and independent variable 2: gender (male or female) and the dependant variable of age of coming into recovery, no significant results were found. As such alcoholics and drug addicts, women and men do not have a significantly different age at which they came into recovery.

A similar analysis was performed looking at years clean as the dependent variable, here there was one significant main effect with regard to the primary addiction ($F=4.802$, $df=1$, $p=.031$) meaning that on average alcoholics appeared to have fewer years clean than drug addicts.

PANAS – X

With PANAS X there are 14 calculations being undertaken. The Bonferroni is 0.003 for 14 calculations. Using this correction there were no significant differences found between primary addictions of alcohol and drugs and no significant differences found with gender when analysing the PANAS X data.

A 2X2X2 mixed ANOVA analysis was conducted on each outcome measure within the PANAS X. The independent variables of primary addiction and gender were the between subjects factors, with PANAS X score from pre to post addiction being dependent variables the within subjects factor.

There was a significant main effect of pre to post scores in all areas covered by PANAS X, which in each case represented a significant improvement from pre-addiction to recovery, as shown in Table 3.

Table 3: ***Pre and Post addiction PANAS X mean scores (showing nos of components)***

Categories	F	Pre mean	Cronbach	Post mean	Cronbach
General Positive (10)	6.993	2.559	.934	3.098	.909
General Negative (10)	106.191***	3.180	.910	1.659	.934
Fear (6)	93.513***	3.088	.914	1.606	.914
Hostility (6)	66.220***	2.768	.875	1.858	.861
Guilt (6)	71.168***	3.169	.927	1.598	.937
Sadness (5)	105.692***	3.389	.927	1.659	.927
Joviality (8)	53.497***	2.503	.931	3.538	.931
Self-assurance (6)	29.488***	2.717	.804	3.406	.735
Attentiveness (4)	27.747***	2.578	.756	3.237	.661
Shyness (4)	77.112***	2.955	.838	1.761	.741
Fatigue (4)	8.671	2.498	.799	2.105	.788
Serenity (3)	164.471***	1.945	.760	3.800	.788
Surprise (3)	22.050***	2.016	.757	2.653	.665
Basic positive affect	66.414***	2.601	N/A	3.588	N/A
Basic negative affect	544.754***	4.412	N/A	3.098	N/A

***=p<.00 3

A Cronbach's alpha has not been calculated for Basic positive affect and Basic negative affect as these are made up of a combination of previous categorise. Basic positive affect consists of joviality, self-assurance and attentiveness, which all have a Cronbach's alpha of over .756. Basic negative affect consists of sadness, guilt, hostility and fear, all of which have a Cronbach's alpha of at least .875.

All but two of the comparisons between pre and post addiction scores were significant including: Joviality, Self-assurance, Attentiveness, Serenity, Surprise and Basic positive affect scores increased and General Negative Emotion, Basic negative affect, Fear, Hostility, Guilt, Sadness and Shyness scores reduced. This indicates a substantial improvement in all areas in recovery. The two areas where the results were not significant using the Bonferroni correction were: General Positive Emotion and Fatigue.

There were no other significant main effects or significant interaction effects detected.

BriefCOPE

Table 4 shows the mean scores for the 14 coping styles in order of use.

Table 4:
BriefCOPE mean scores

Coping Style	Mean	Std Dev	95% Confidence Interval
Substance use	7.240	.191	6.892 -7.619
Self-blame	6.524	.206	6.114- 6.934
Behavioural disengagement	5.489	.237	5.019 - 5.959
Humour	5.188	.291	4.610 - 5.767
Self-distraction	5.100	.236	4.631 - 5.569
Acceptance	4.982	.204	4.576 - 5.387
Denial	4.126	.207	3.716 - 4.536
Venting	4.023	.181	3.663 - 4.383
Planning	3.660	.210	3.243 - 4.076
Positive reframing	3.623	.214	3.198 - 4.049
Active coping	3.388	.171	3.050 - 3.727
Use of emotional support	3.065	.182	2.704 - 3.426
Use of instrumental support	2.995	.175	2.648 - 3.342
Religion	2.727	.150	2.429 - 3.025

WHOQOL- Bref

With WHOQOL- Bref all data were used across all addictions. Results of the initial analysis of this data are shown in Table 5:

Table 5: ***Mean scores and 95% confidence intervals of WHOQOL-Bref***

Domain	**Mean**	**95% Confidence Interval**	
		Lower	**Upper**
Overall life *	4.4	4.3	4.6
Overall Health *	3.5	3.3	3.7
Physical domain **	70.3	61.1	79.6
Psychological domain **	63.0	54.9	71.0
Social Domain **	62.3	52.3	72.2
Environmental domain**	75.3	67.6	83.0

*Overall scores are between 1 and 5

** The 4 domains – the score is between 20 and 100

Comparing these scores to the population norms (table III) provided by Hawthorne (Hawthorne et al. 2006) would indicate that all the participants in this research considered their physical, psychological and social domains to be between fair and good, and their environmental domain to be between good and very good.

To compare this data with general population norms (Hawthorne et al. 2006) the data needed to be divided by age group. The three age groups n>= 20 participants are 30-39 with 22 valid participants, 40-49 with 38 participants and 50-59 with 41 participants. Table 6 shows the results of the comparison with controls.

Table 6: ***Comparison of mean scores between Controls and Participants with WHOQOL-BREF***

Age	Group		Physical		Psychological		Social		Environmental	
		n	Mean	95%CI	Mean	95%CI	Mean	95% CL	Mean	95%CI
30-39	**Population norm**	87	82.0	79.1-84.9	73.5	70.5-76.5	73.7	69.6-77.8	73.2	70.5-75.9
	Participants	22	79.1	70.9-87.2	69.7	63.1-76.2	65.9	58.0-73.9	79.3	73.1-85.5
40-49	**Population norm**	88	77.8	73.6-82.0	71.5	68.4-74.6	72.1	68.3-75.9	72.3	69.6-75.0
	Participants	38	80.3	73.8-86.9	71.4	66.3-76.3	68.5	62.5-74.5	76.5	71.8-81.1
50-59	**Population Norm**	66	80.3	76.1-84.6	73.8	70.7-76.9	73.1	68.6-77.6	77.0	73.7-80.3
	Participants	41	73.7	68.1-79.5	69.7	64.8-74.7	68.6	62.5-74.5	78.3	73.7-82.9

Of the 12 data points (four for each of the three age groups) the recovery participants had lower scores than the control group in 7 areas. In the 3 data points for environment domain, however the recovering participants scored higher than the controls. Interestingly the environmental domain in ages was higher than the controls.

However the age of participants tells us nothing about their clean time (see Table 7 for participants divided by age and clean time group). Those in the 30-39 category have 12 participants with 5 or fewer years clean and only 2 with 11 to 20 years clean, whereas in the 40-49 category there are 10 participants with up to 5 years clean but 19 participants with 11 to 20 years clean. For this reason a further analysis was carried out to see how participants quality of life changed as their clean time increased using four 4x2 mixed ANOVAs, between the 4 clean time in years (independent variable) with QOL measures (dependent variables). These results are shown in Table 8.

Table 7: ***Division of participants by age and clean time groups***

	Age	30-39	40-49	50-59	Total
Clean	**0-5**	12	10	6	28
time	**6-10**	8	7	7	22
in	**11-20**	2	19	16	37
years	**21+**	0	2	12	14
	Total	22	38	41	

This indicates that as recovery time increases so does the quality of life for people in recovery in all domains except the social domain where a dip is shown in the 6 to 10 years clean group. Due to the variation of participant ages in each of the 'clean time in years' groups, statistical significance has not been included between the various clean time groups this is because actual age can be seen as a confounding factor. For example; life experience and expectations will differ between people aged 30 to 39 and those between 50 to 59, this makes it impossible to see significance between their recovery experiences of 0 to 5 years and 21 years and over and separate the significance between recovery and simply different age groups, however this does not negate the fact that differences are evident in the statistics.

Table 8: ***Participants by length of clean time WHOQOL-Bref mean scores, SD and 95% Confidence level***

Clean time In years		***Physical***			***Psychological***			***Social***			***Environmental***		
	n	**Mean**	**SD**	**95%**	**Mean**	**SD**	**95%**	**Mean**	**SD**	**95%**	**Mn**	**SD**	**95%**
0-5	32	72.4	3.49	65.5-79.3	66.8	2.98	60.9-72.7	65.5	3.63	58.3-72.7	74.6	2.80	69.1-80.2
6-10	24	74.5	4.02	66.5-82.4	70.0	3.43	63.2-76.8	62.7	4.18	54.4-71.0	77.2	3.23	70.8-83.6
11-20	40	75.4	3.12	69.3-81.6	70.6	2.67	65.3-75.9	69.3	3.24	62.9-75.8	78.8	2.50	73.8-83.8
21+	18	74.1	5.19	63.8-84.4	66.6	4.43	57.8-75.3	68.9	5.39	58.3-79.6	74.3	4.16	66.1-82.6

Significant interactions

PANAS-X

When investigating whether type of addiction or gender influenced levels of affect further ANOVAs were carried out, with the independent variable being either gender (male / female) or addiction (alcohol / drugs) and the independent variable being the mean affect scores (pre-addiction / recovery) using the Bonferroni correction (0.05/ 14 = 0.004) all of these results are non-significant.

Without the Bonferroni correction there were only two significant results. A significant interaction was found with Fatigue * primary addiction * gender (F=5.220, df=1, p=.025), indicating that alcoholics of both genders were significantly more fatigued than addicts, as shown in Figures 1and 2.

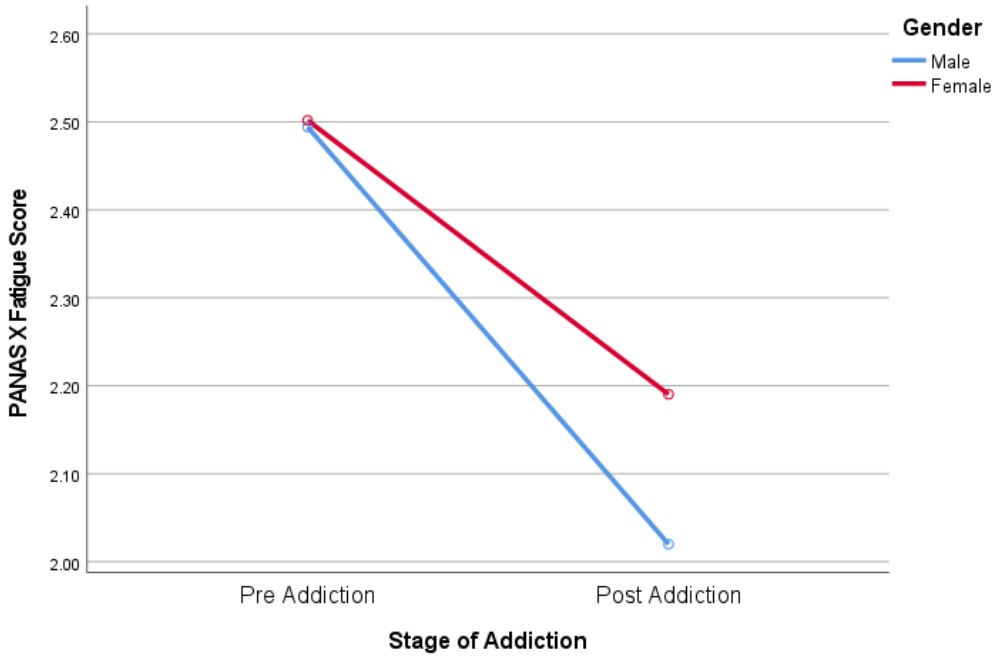

Figure 5: ***Levels of fatigue by addiction type***

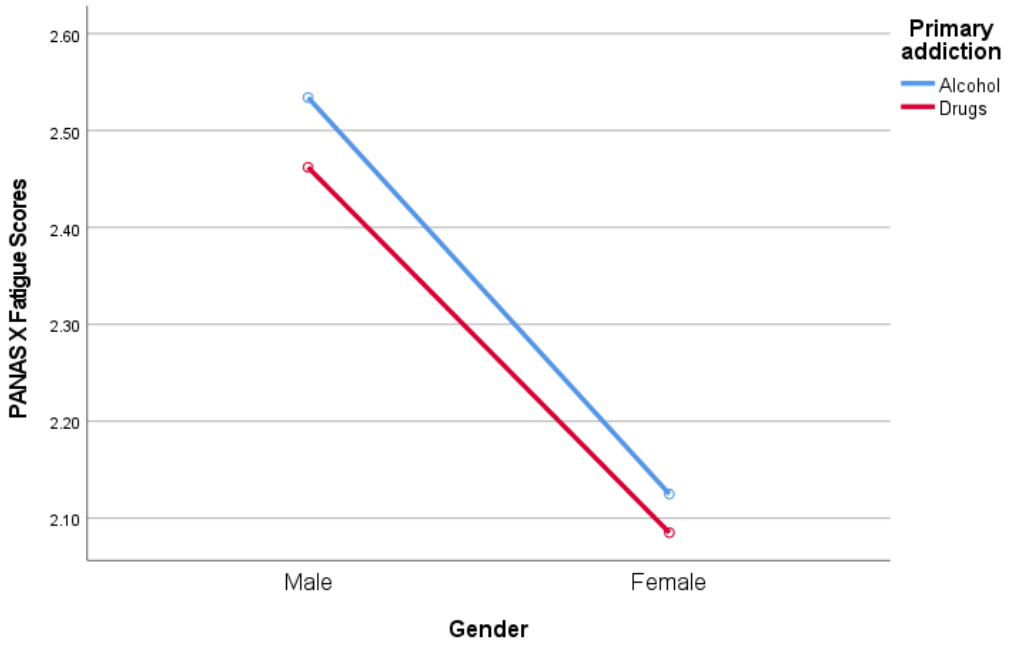

Figure 6: ***Levels of fatigue by gender***

The serenity category also showed a significant difference, without the Bonferroni correction, between addictions (F=4.236, df=1, p=.042) as shown in figure 2. This would suggest that alcoholics in recovery are more serene than drug addicts.

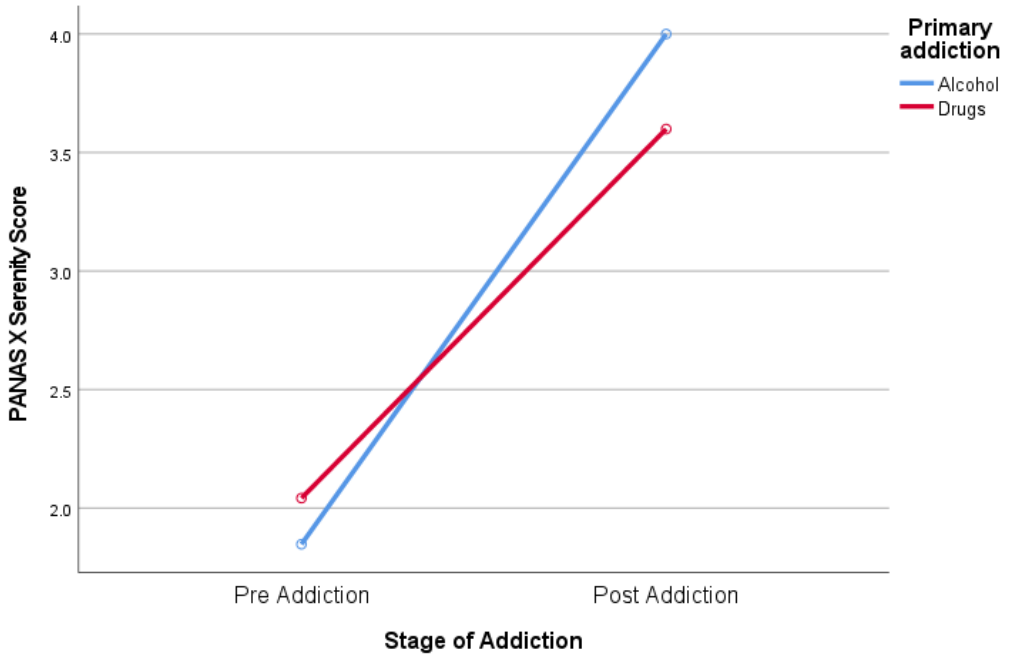

Figure 7*: Levels of serenity by addiction type*

These results would indicate that overall, although the change between addiction and recovery is significant in all these areas, there is very limited indication of primary addiction playing any part other than in the areas of serenity and fatigue where gender also had an effect.

BriefCOPE

These scores were analysed to explore potential differences between coping style, addiction and gender. Here two significant results were found, one between addictions and one between the genders.

There was a significant difference between addictions in the coping category of Religion (F=4.483, df=1, p=.037), showing that alcoholics use religion more than drug addicts as a coping strategy as shown in Figure 4, although as a coping strategy it is not used a great deal (mean = 2.727)

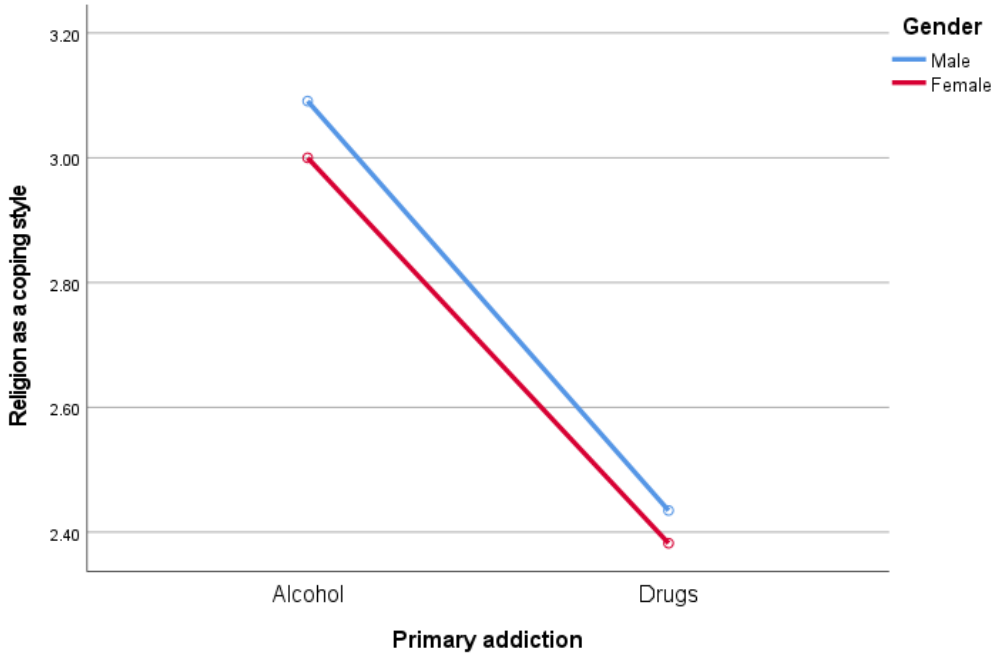

Figure 8: ***Religion as coping style by addiction type***

Similarly, with the coping strategy of self-blame there was a gender difference (F=6.344, df=1, p=.013), with women holding themselves to blame more than men (see Figure 5).

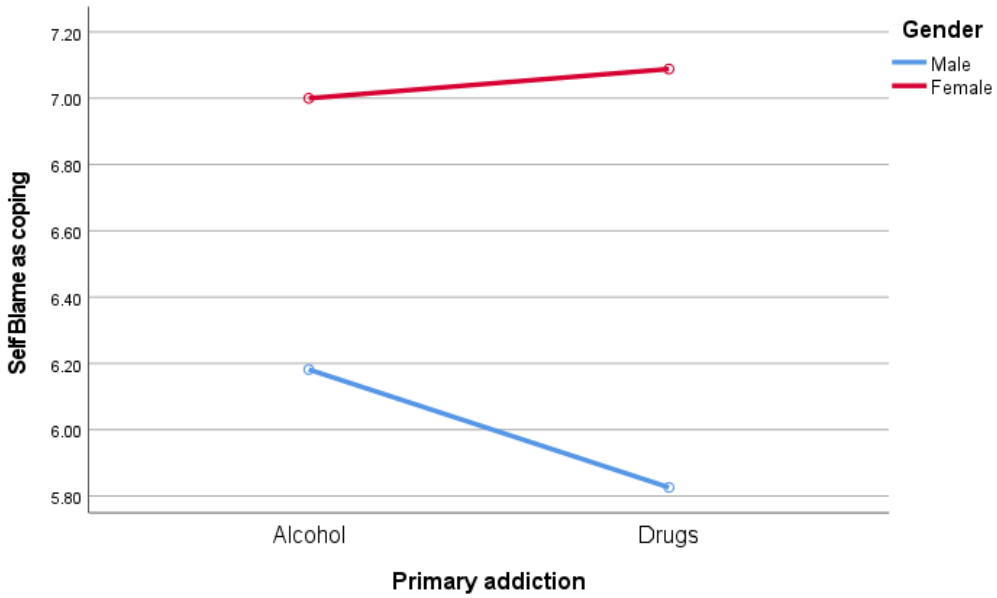

Figure 9: ***Self-blame as coping style by addiction type and gender***

Using 2X2 ANOVA with each domain of the WHO-QoL Bref with the DV as gender and primary addiction (Drugs or alcohol) as the IVs, to compare differences in quality of life by addiction and gender, two significant interactions were found. In the physical domain, a significant effect was found for gender ($p = 0.02$) and for the interaction between gender and addiction type ($p = 0.01$) as shown in Figure 10, indicating that females with either a drug or alcohol addiction experiences lower satisfaction with their physical condition than their male counterparts, and that female alcoholics experience the lowest satisfaction of all. Males have the highest satisfaction with their physical condition with male alcoholics showing a marginal advantage over drug addicts.

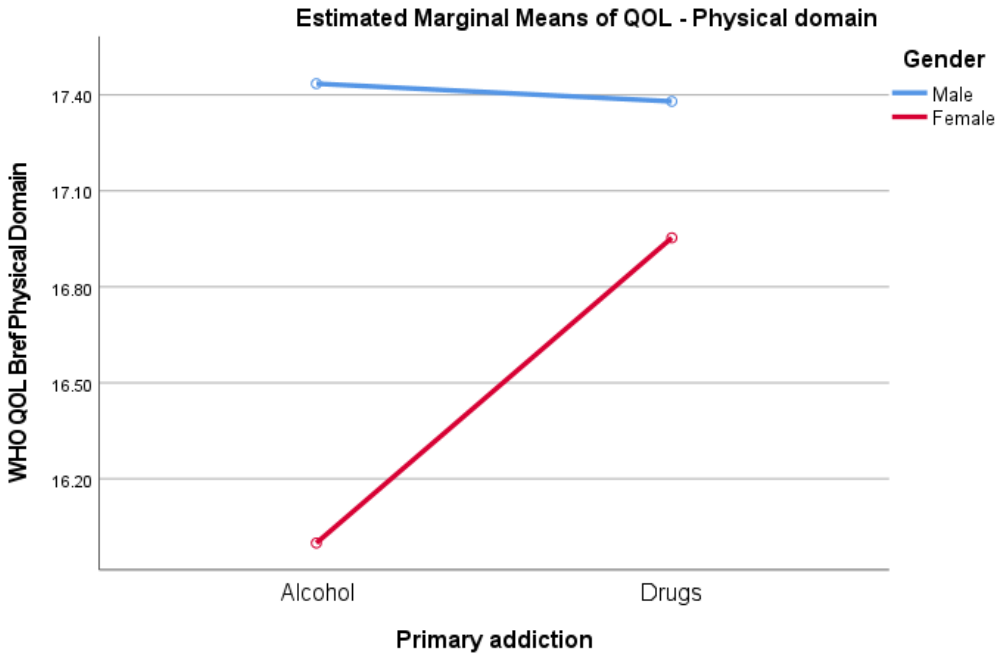

Figure 10: ***Effect of gender and addiction on WHOQOLBref Physical Domain***

In order to determine how the variables from the three questionnaires were related to each other, the following Pearson correlations were carried out:

1. Post addiction PANAS X (general positive affect, general negative affect, basic positive affect, basic negative affect) and WHOQOL-Bref, (Table 9)
2. Brief COPE and WHOQOL (Table 10)
3. Primary addiction, years clean, secondary addiction and WHOQOL-Bref (Table 11)

Table 9: Correlations Post addiction PANAS X to WHOQOL-Bref

	QOL Overall quality of life	QOL Overall physical health	QOL - Physical domain	QOL - Psychological domain	QOL- Social domain	QOL - Environmental domain
Primary addiction	-0.26	***	*	-0.14	-0.09	-0.07
General Positive	0.16	*	0.05	*	-0.05	*
General Negative	-0.42	-0.28	-0.45	-0.53	-0.49	-0.48
Fear	-0.42	-0.31	-0.44	-0.49	-0.47	-0.48
Hostility	-0.1	-0.12	-0.25	-0.16	-0.16	-0.13
Guilt	-0.38	-0.22	-0.35	-0.55	-0.39	-0.41
Sadness	-0.52	-0.36	-0.43	-0.56	-0.55	-0.51
Joviality	0.52	0.31	0.46	0.61	0.47	0.57
Self Assurance	0.46	0.19	0.35	0.46	0.37	0.44
Attentive	0.36	0.06	0.25	0.36	0.31	0.35
Shyness	-0.08	-0.12	-0.08	-0.26	-0.28	-0.20
Fatigue	-0.32	-.051	-0.51	-0.47	-0.26	-0.42
Serenity	0.42	0.31	0.34	0.45	0.38	0.48
Surprise	0.23	0.16	0.15	0.23	0.28	0.26
Basic Positive	0.61	0.26	0.48	0.61	0.49	0.59
Basic Negative	0.15	-0.02	0.09	*	-0.06	*

*** = p < .001, ** = p < 0.01, * p < .05.

Table 10: Correlations Brief COPE and WHOQOL-Bref

	Primary addiction	QOL Overall quality of life	QOL Overall physical health	QOL - Physical domain	QOL - Psychological domain	QOL- Social domain	QOL - Environmental domain
Self distraction	-0.15	*	-0.11	**	-0.05	**	*
Active coping -	0.15	*	0.19	0.18	**	*	0.11
Denial	-0.08	0.10	***	-0.06	**	-0.05	-0.08
Substance use	-0.15	0.05	-0.09	-0.12	*	-0.07	-0.08
Emotional support	0.09	*	0.05	*	*	.20	*
Using instrumental support	0.08	0.05	0.09	*	*	0.11	0.07
Behavioural disengagement	**	.24	-0.09	0.13	*	*	0.04
Venting	-.21	0.12	0.19	*	0.12	0.12	0.14
Positive reframing	-0.09	*	*		0.07	**	0.07
Planning	0.1	*	0.07	*	-0.1	0.12	**
Humour	-0.11	0.05	*	*	*	*	*
Acceptance	-0.11	0.15	0.08	0.09	0.12	0.1	**
Religion	-.19	0.12	0.07	*p	.22	.21	0.09
Self-blame	-0.08	.21	***	*	*	*	*p

*** = p < .001, ** = p < 0.01, * p < .05.

Table 11: Correlations between Primary addiction, years clean, secondary addiction and WHOQOL-Bref

	Primary addiction	Years clean	Secondary addiction
QOL Overall quality of life	-.259**	-.204*	*
QOL Overall physical health	**	0.031	0.166
QOL - Physical domain	*	**	0.071
QOL - Psychological domain	-0.141	*	0.071
QOL- Social domain	-0.093	-0.057	.240*
QOL - Environmental domain	-0.074	*	0.162

*** = p < .001, ** = p < 0.01, * p < .05.

Discussion

The aim of this research was to follow on from the thematic analysis and further investigate the relationship between addictions. Due to the nature of the sample, it has mostly been between alcoholism and drug addiction. The aim has been to ascertain the similarities between addictions in relation to thoughts, feelings and beliefs of those who go on to experience addiction, and to extend this to see both pre and post addiction and any gender differences that may impact the results.

It was expected that participants would commonly have more than one addiction. In this study 80 of the 115 (68.2%) participants reported suffering from two or more addictions. The most common combination was drugs and alcohol, with food, sex, internet, gambling and gaming following in in decreasing order of commonality. This finding implies that addiction is more fluid than research would suggest with its parameters of seeking out participants with only one problem (Christo and Morris 2004; O'Brien et al. 2008; Banducci et al. 2014; Wardell et al. 2016; Teixeira et al. 2017).

One study found twice as many traumatic life events as well as markedly higher anxiety levels in the lives of individuals with substance-use disorders compared with participants without addiction disorders (Christo and Morris 2004). This research could be extended to see if this also applied to other addictions or multiple addictions. There is some research beginning to show the existence of co-morbidity between internet use and alcohol where there is a 'positive correlation between disordered OSN (online social networking) and problem drinking' (Hormes et al. 2014). Male internet addicts and alcohol dependents have been shown to have similarities in terms of higher neuroticism, lower agreeableness, higher

impulsivity and anger expression, increased anxiety and depression and lower openness to experience, as well as similarities in emotion, temperament and personality traits when compared to healthy controls (Hwang et al. 2014), but this type of research is limited at present.

It was expected that there would be no significant differences between addictions with regard to affect. Results showed this with the PANAS X using the Bonferroni correction. Without this correction measures of affect showed significant differences between alcohol and drug addiction in the areas of; fatigue, where alcoholics showed higher fatigue than drug addicts both pre- and post- active addiction, and serenity where alcoholics showed a greater improvement from pre- to post- active addiction. Further, on average alcoholics appeared to have fewer years clean than drug addicts. This may be due to the number of alcoholic participants (25) compared with drug addicts (88) skewing the data. Or it may be due to the ease of access of alcohol compared with drugs. Whilst it is argued that obtaining drugs today is an easy task with 41% of adults from 16 to 59 claiming they could obtain drugs within 24 hours (Home Office National Statistics 2019), despite not being legally available in the UK, it is still not as easy as going to a local supermarket for alcohol, which is legal in the UK to adults aged 18+ years. PANAS X did identified significant improvements in affect from pre-addiction and recovery

It was expected that there would be significant improvement in affect in all areas from pre- to post addiction as measured by PANAS X. This was found to be the case, with scores decreasing in general negative affect, fear, hostility, guilt, sadness, shyness, fatigue, and basic negative affect and increasing in general positive affect, joviality, self-assurance, attentiveness, serenity, surprise, and basic positive affect. This indicates that a person's affective state improves when an individual starts to recover from addiction. PANAS has been used in many ways with addicted populations, as a tool to help individuals in recovery from alcohol addiction to understand their feelings. (Krentzman et al. 2015). It has been used to quantify perceived social support through resilience (Yang et al. 2022) The findings would suggest that generally addicts in recovery have more positive affect than Addicts have a more positive affect in recovery than individuals in a pre-addiction condition.

Although unconventional, participants in this study were given an opportunity to share thoughts or feelings on the subject of recovery. These can be found in Appendix 9.

Overall these findings could imply that the roots of addiction are around a lack of learning how to cope with life in early life (Catanzaro and Laurent 2004; Hamdan-Mansour et al. 2007; Stapinski et al. 2016) resulting in a profound internal unhappiness. This loosely corresponds to the Home Office Statistical Bulletin 21/19 where it was found that people with self-reported lower levels of happiness were more likely to have taken any drug in the last year (1 in 5)

than those with self-reported higher levels of happiness (1 in 16) (Home Office National Statistics 2019).This could be explored further in semi-structured interviews with individuals in long term recovery (5 years or more) reflecting on their early life, events leading up to recovery, and what they have learned in recovery that makes it sustainable as a lifestyle choice. This may further highlight areas that could have been addressed in early life to reduce the chances of addiction.

The questions and answers related to study 2 were:

1. Does affect according to the PANAS X categories improve from pre-addiction to recovery? Yes it does
2. Are there any significant differences of PANAS X categories between males and females? No there are not.
3. Are there any significant differences of PANAS X categories between drug addicts and alcoholics? No there are not.
4. What are the main coping strategies individuals use pre-addiction? Substance use, self-blame, behavioural disengagement and humour
5. How does perceived quality of life for people in recovery compare with normative data? In order to establish this, greater numbers of data are required.
6. Is there is perceived improvement in quality of life for people in recovery which increases with duration of recovery? Yes, there is, on this data up to 21 years.

Chapter 7: General Discussion

The overall aim of this research was to look for issues related to addiction that are not usually examined such as thoughts feelings and beliefs. It also aimed to identify any evidence of variations in the experience of addicts between males and females and between different addictions. Finally, evidence was sought on variations in the experience of people in recovery dependant on years in recovery.

To achieve this aim two studies were undertaken, the first being a thematic analysis of thoughts, feelings and beliefs held by people who shared their stories in the Alcoholic Anonymous Big Book (Wilson and Alcoholics Anonymous 2013), the Overeaters Anonymous Brown Book (Overeaters-Anonymous 2014) and the Narcotics Anonymous Basic text (Narcotics Anonymous 2008) from their lives before addiction took hold. This study aimed to identify overarching themes, common between addictions. Four themes relating to emotional states were identified as the most prominent feature of the data: feeling different/wrong, experiencing emotional pain/inner conflict, negative feelings towards self and fear. If this is what underlies addiction, then it could be argued that addiction is not a disease but the reaction of a person in emotional torment. During an addiction, addicts are clearly emotionally suffering as shown in various examples in the literature review. This is in line with the theories of both Gabor Matē and Bruce Alexander (Alexander 2008; Maté 2018) who both define addiction in terms of individuals suffering emotional pain.

The second study aimed to find support for the findings of study one and extend these to explore different affect between addicts and alcoholics, males and females and people of differing clean times. This was done by the use of PANAS X, BriefCOPE and wHOQOLBref. Comparison of the Thematic Analysis findings with the PANAS X results supports the idea of pre-addiction being characterised by fear, negativity towards self, emotional pain/inner conflict and feeling different or wrong.

It was expected that all addictions would show the same tendencies with regard to coping strategies. Of the 14 coping strategies covered in the BriefCOPE, there was no significant difference between individuals with alcohol and drug addiction. However, a difference was found between alcoholics and addicts in the area of religion where alcoholics reported using this coping style more than drug addicts, although overall this was the least used coping strategy. Comparing the coping strategies from the thematic analysis and BriefCOPE we find commonalities in: self-distraction links with control and obsession, denial could link with control and anger, venting also relates to anger, self-blame links with negative feelings towards the self, behavioural disengagement links to wanting to escape. The most prevalent coping theme from study 2 is substance use which links with coping as using. The second,

self-blame links to wanting to escape and hiding aspects of self. The third and fourth coping styles of behavioural disengagement and self-distraction can be seen to link with control and obsession from the thematic analysis. The coping strategy found in this analysis that was not represented in the thematic analysis was humour. Although there is much research into coping around addiction this tends to look for overarching themes rather than individual coping styles and tends not to look at coping during addiction, but rather coping in detox and beyond (Yigitoglu and Keskin 2019).
The coping styles are as follows: Self-distraction, Active coping, Denial, Substance use, Use of emotional support, Use of instrumental support, Behavioural disengagement, Venting, Positive reframing, Planning, Humour, Acceptance, Religion and Self-blame. Some of these could be regarded as positive coping strategies; active coping, use of emotional support, use of instrumental support, positive reframing, planning. Some could be regarded as negative coping strategies; denial, substance use, behavioural disengagement and self-blame. For other coping strategies the way they are used may be important in deciding if they are positive or negative; self-distraction, venting, humour, acceptance and religion.

No significant differences between genders were identified with regard to affect or coping, in line with other research in this area (Hamilton and Grella 2009) where modest gender differences were found in a group of participants over 50 years of age and these differences were mainly in focus groups where women's concern was around the affect of their addiction on families and men's presented as surprised to be alive. Of the 15 types of affect covered in PANAS X only fatigue showed a difference between genders and addictions, although using the Bonferroni correction this difference is not significant, with female alcoholics reporting higher levels of fatigue than any other group. This may be related to females being more vulnerable to stressful events than males (Birath et al. 2010) or that females, who tend to drink alone may experience more shame (Cunningham 2012) which could lead to more fatigue. The other gender difference was that of self-blame, a coping strategy seen more with females than males. This has also been found in burnout with medical students (Brielle et al. 2016) and other studies have shown that females tend to use emotional-focused coping strategies such as self-blame more than men who tend to use problem-focused coping strategies (Gattino et al. 2015). As these differences are known in the female population in general, they are more likely to be related to intersectionality than to addiction (Meehan et al. 1985).

One of the main problems with the WHOQOLBref was that participant age did not necessarily represent length of clean time, with age at entering recovery varying from 18 to 61 years. This means no conclusion can be drawn from the age of a participant with regards to assuming length of clean time. This also means that accurate comparison to other age

related data, although accurate in comparing like ages does not in fact compare length of recovery.

The only way to compare length of clean time was by dividing data by clean time length. It was expected that improvements in quality of life and health would increase over time in all domains covered by WHOQOL-Bref. As previously stated, statistical analysis was not carried out. This was due to the relationship between clean time and chronological age being a confounding factor. Apportioning significance is impossible as there is no way to determine if the significant difference is due to clean time or chronological age. Scores for all domains in WHOQOl-Bref change with the age of the participants, so here it is impossible to say whether the significance is due to age or length of recovery, especially with the low numbers of participants in each age/clean time category. However, participants reported high overall quality of life in recovery but only a moderate satisfaction with quality of health. This is possibly due to the effect of the rigours of addiction (Bachi et al. 2017).

The main finding when comparing participants in recovery with non-addicted controls is that participants in recovery scored lower than controls except in the environment category where recovery participants scored higher in every age group. Test of statistical significance was not carried out as the age group contains multiple lengths of recovery. This covers: financial resources, freedom, physical safety and security, health and social care, accessibility and quality home environment, opportunities for acquiring new information and skills, participation in and opportunities for recreation / leisure activities, physical environment (pollution / noise / traffic / climate) and transport.

The main finding when comparing participants based on number of years clean was that across all domains the mean scores increased as the number of years in recovery increased until the 21+ age group, when the scores reduced. This may be due to the fact that participants with over 21 years in recovery are going to be the oldest participants where longer-term effects of addiction come into play; health problems increasing in all areas due to premature aging caused by addiction (Bachi et al. 2017) and possibly retirement issues around a lack of previous pension / savings. Overall, this does not indicate that there are continued improvements using WHOQOL-Bref, but that from early recovery up to 21 years + there are improvements in all domains, and that generally people in recovery are more content with their environment that non-addicted people throughout their recovery.

During this research, the researcher identified an interesting issue that was not included in the original plan for this study. In study 2, participants were asked about the number of addictions they had personally experienced. Of the participants, only 31.3% had experienced one addiction, with all the other participants reporting two or more addictions up to a total of seven. Of the seven possible addictions listed two were for substances, one was food, the

other four were behavioural addictions. This supports evidence found in Study 1, where there were clear demonstrations of individuals experiencing multiple addictions. This is in keeping with the theories of both Maté and Alexander (Alexander 2008; Maté 2018), for whom addiction can be related to any activity that has the potential to bring relief. Maté shares his own experience of addiction in relation to classical music and the ownership of CD's, (Maté 2018) in his description he clearly exhibits attributes that are commonly associated with all addictions adding credence to the notion of behavioural addictions. This also brings into question studies that try to exclusively recruit individuals with only a single addiction, raising the question of how representative they are of addiction. For the researcher interest in this is curious, because working in residential rehabilitation it is the norm for clients to have multiple addictions and single addictions are considered unusual, therefore the 31.3% of participants with a single addiction was expected rather than extraordinary (Sussman and Sussman 2011; Najavits et al. 2014; Reslan et al. 2014; Hormes 2016).

To return to the original questions posed in the abstract:

In relation to hypothesis 1, it was found to be possible to identify commonalities across differing addictions in the area of affect (feeling, thought, belief) regardless of addiction or gender.

In relation to hypothesis 2, although addictions are studied separately, there is evidence of addictions being either concurrent or consecutive for an individual.

In relation to hypothesis 3, life improves with length of time in recovery up to 21 years.

The findings of this research are based on open sharing by addicts in recovery of their experiences in life. The idea was to try and establish what lies behind addiction itself rather than looking at their presenting problems which is usually investigated and highlighted in the literature review.

The findings of this research are not intended to give credence to any definition of addiction, however the findings support the idea that addiction is not a disease but a means of coping for individuals who have experienced intensely negative emotions resulting from changes or challenges experienced during their life (Maté 2018) , or that there addiction is a manifestation of the intense stress of modern life causing them to felt dislocated and isolated (Alexander 2008).

From the researcher perspective, it is important to understand why it was beneficial to classify addiction as a disease in 1989. Prior to this time the societal consensus was that addicts were weak willed, and addiction was self-inflicted. This idea was expressed in the 'Just Say No' campaign of the 1980's, showing complete ignorance of the basic drivers of addiction, as by definition if you can simply say no then you are probably not an addict. In America, where health care is paid for by the patient rather than free at the point of access,

being classified as a disease enabled addiction to come under health insurance so sufferers could claim for assistance on their insurance. It also to enabled pharmaceutical companies to begin to investigate and produce medication for addictions, some of which have been lifesaving, such as naloxone, which can be given to a person in overdose to revive them.

It may now be time to retire the notion of the disease of addiction, especially as mental health is much more acceptable as a topic of research and public discussion than it was previously. CBT based self-help is widely? available. This comes with one caveat, that it might be useful to investigate any permanent brain alterations or impairments that may prevent people who have previously been addicted to something from being able to successfully use again in the future. For Alexander, the time of safety will come after society stops causing dislocation and isolation in its population, and for Matē, safety comes after dealing with one's trauma (Alexander 2008; Maté 2018; Maté 2022). Therefore, thought needs to be given to the new dialogue in the addiction conversation to aim to avoid any unintended consequences that may result in a reduction in support for those who are currently suffering, an increase in relapse, or a breakdown in 12 step fellowships which are a lifeline for many. It is possible that re-classifying addiction as being overwhelmed by life rather than an illness might give governments a justification to remove all funding. It is currently unclear how addiction could be re-classified. There is something clearly out of balance in a using addict. However, a position needs to be found that keeps the best of what we have and still improves the underpinning and understanding of addiction. Even Alexander agrees that the work of recovery organisations is good, although insufficient in the face of the growing problem of societal dislocation and the rise of addiction in all its forms (Alexander 2008).

Strengths and Limitations

Both studies are, at least in part, retrospective studies. Retrospective studies can be regarded with scepticism. This appears to be particularly true of reports of early experiences or experiences that rely on judgement (Hardt and Rutter 2004; Lacey and Minnis 2020) Further, mood dependant memory, where the participants are depressed or under psychological stress at the time of taking part, may cause an increase in reporting negative childhood events. (Colman et al. 2016). Retrospective study has been questioned with regard to the accuracy of recall and is in need of further research to give it a level of validation (Maughan and Rutter 1997), however it should not be discounted out of hand (Hardt and Rutter 2004).

Study one was based on texts written as personal essays from fellowship members that are intended to share with the reader their 'experience, strength and hope.' This means that the stories are there for the purpose of identification for prospective members, new members and current members of the fellowship, and cover how life was, what happened and how life

is today. This is retrospective recall and maybe considered to have both strengths and weaknesses, they are written by individuals with the desire to encourage identification with other members, exaggerating past ills is possible, however as the space each person has is limited which may encourage individuals to be more concise and honest.

Study two did not ask for recall of any childhood events, rather it sought to investigate affect and coping skills from early adolescence. With regard to mood dependant memory, as this study compares past and current affect, it could be argued that both sets of scores would be similarly affected and limited differences would be identified. A final point with regard to recall is that it is expected that the majority of participants will be part of a 12-step fellowship and attend meetings where addicts share their experiences of addiction and recovery with one another, meaning their experiences are likely to remain fresh in their minds. This is usually done in the format of one recovering addict talking about their life and experiences for about 20 minutes, which is referred to as the main share. The meeting is then opened up for others to speak, to identify similarities and talk a little about their lives today. Every person will be asked to do a main share from time to time so that the share is different each week. This is not a form of group therapy but a way to remain aware of the past in comparison to the present. It offers hope to newer members and gratitude to older members (World Service Office 2014).

The nature of this kind of research has difficulties. Sampling with addiction studies is always an issue. Firstly it is easier to recruit from treatment centres, or aftercare services (Aguilar de Arcos et al. 2008; Birath et al. 2010; Banducci et al. 2014) or self-help groups than from individuals who have recovered on their own as the later are hard to identify unless they self-disclose in some way. Having the questionnaire available online only may have excluded those who did not visit the relevant website(s), see it on Facebook or see the invitations sent to various treatment providers. This results in unintended exclusions. Within the self-help community there are links on social media such that getting an invite to participate to one person can mean that all their recovery friends also see it through sharing using snowball recruiting. These factors raise issues around generalisability of findings and representativeness of the participants. There will be an under-representation of those who naturally recovered from addiction. Borkman et al (2016), to answer the question ‘What is Recovery (WIR)’ had to advertise in the national press and Craigslist, to find those who had naturally recovered, and even so 75% of their participants were from self-help groups (Borkman et al. 2016). Further, those who felt that their recovery was not at present successful may not have wished to participate (Beglin and Fairburn 1992)

Because of the online nature of the questionnaire all information was self-reported. Although we requested that only over 18’s completed it there was no actual way to control this. Also, it was not possible to exclude people who were not genuinely abstinent.

Because this study was really a snapshot in time, rather than a longitudinal study it is not possible to say anything about the individual journey of addiction, from pre-addiction through early abstinence to long term recovery, only to highlight differences between pre-addiction thinking and current life state. In order to explore the journey of addiction a longitudinal study would need to be undertaken, following a significant number of children. Bearing in mind the level of addiction in the community, this could be part of a longitudinal study of other areas of adolescent and early adulthood that are of current concern e.g. screen time and cyber bullying.

Very few significant differences were identified between alcoholics and drug addicts, and all addicts reported similar internal experiences prior to or at the onset of addiction. Over 2/3 of participants considered themselves to be addicted to more than one substance or behaviour. This would indicate that, apart from studying the effects of physical dependence, there is no reason not to study alcoholics and addicts as one cohort. With 69.7% of participants considering themselves to have 2 or more addiction it could be suggested that rather than there being many types of addictions there is 'addiction,' which presents in many variations. This suggests that the traditional idea of studying each addiction in isolation (Khantzian et al. 1974; O'Brien et al. 2008; Pretlow 2011; Banducci et al. 2014) might not be useful. There were also no significant gender differences, suggesting that both males and females share similar internal experiences prior to or at the onset of addiction.

Finally there are significant improvements in many areas built up during long term recovery. This was evidenced in significant improvement between the PANAS scores from pre to post addiction and in the WHOQOL Bref, where the scores increase from 0 to 20 years in all domains and exceed the controls in the Environment domain at every stage.

This raises questions about whether the addictions were consecutive or concurrent, or whether one addiction was used in order to control another. Whilst food is not an uncommon addiction the sex and internet use raise some interesting questions around non-substance based addictions and pornography online. How much of the internet use is related to 'hooking up' with cross addiction between sex and internet use? Was it because of coming into recovery from one addiction that another addiction became apparent? With alcoholics and drug addicts presenting very few differences in any of this research could it be that rather than looking for differences between addictions we should be looking for differences between groups of people who experience addiction? These are all questions raised by the results of this study, which could be addressed in further research.

The coping styles are as follows: Self-distraction, Active coping, Denial, Substance use, Use of emotional support, Use of instrumental support, Behavioural disengagement, Venting, Positive reframing, Planning, Humour, Acceptance, Religion and Self-blame. Some of these could be regarded as positive coping strategies; active coping, use of emotional support, use

of instrumental support, positive reframing, planning. Some could be regarded as negative coping strategies; denial, substance use, behavioural disengagement and self-blame. For other coping strategies the way they are used may be important in deciding if they are positive or negative; self-distraction, venting, humour, acceptance and religion.

Further research

In order to further investigate the hypothesis that addiction is a single phenomenon with different manifestations, a larger scale analysis would need to be undertaken. Such research could recruit more people with differing primary addictions and natural recovery, or auto-remission to identify any differences. Although many participants in this study had secondary addictions that were non-substance-based, these were not considered primary addictions by participants. The way drug addicts and alcoholics present themselves may play a part in this as it is often easy to tell who is suffering from these addictions by physical appearance alone.

Another area of further research could include; exploring the impact of ageing in recovery as older people tended to report lower levels of satisfaction in quality of life.

The experience of addiction seems to go from bleak and painful, negatively affecting individuals, families and society as a whole, but through recovery can improve in in a variety of areas, in some ways appearing to exceed the satisfaction of people who have never suffered from addiction. These improvements appear to continue as time in recovery increases. This is a positive message for a condition that is considered to be an ongoing problem and to cause many societal problems and for individuals who believe that once an addiction has been established there is no hope for the future. Research into the positive aspects of recovery and the benefits to the family, community and society might help to improve the image of addiction and reduce the stigma, thereby helping people in addiction to reach out for recovery.

Implications for practice could include finding a new way to introduce the reason for an individual's addiction to them without calling it a disease. Further, not separating people by their addiction for general treatment; but meeting people's intersectional needs by providing specialist groups, for example: LGBTQ groups, groups based on ethnicity etc. and providing more trauma informed support. Evidence that long term recovery has a positive impact on self-esteem and affect, coupled with the idea of increased satisfaction with quality of life as duration of recovery increased could aid in the instillation of hope for those seeking to recover.

Evidence that almost two thirds of respondents to this survey had multiple addictions is unlikely to impact practice significantly where alcohol and drugs are concerned. However it could be recommended for practitioners to screen for multiple addictions when individuals

present for treatment for addiction to alcohol or drugs and potentially help clients with their secondary addictions, for example stop internet access for people with internet addictions.

These studies have found potential new themes relating to the underlying affect of individuals prior to their addiction, regardless of how they present to the outside world these are examples of what they are experiencing internally and how they try to cope with this. They have also demonstrated the potential improvement in affect from pre-addiction to recovery, and the ongoing improvements possible as length of clean time increases.

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Appendix 1 Ethical Approval Study1: Thematic Analysis

Research Ethics Checklist

Reference Id	12570

Status	Approved
Date Approved	08/08/2016

Researcher Details

Name	Tessa Corner
Faculty	Faculty of Science & Technology
Status	Postgraduate Research (MRes, MPhil, PhD, DProf, DEng)
Course	Postgraduate Research - FST
Have you received external funding to support this research project?	No

Project Details

Title	Is it possible to detect addiction prior to onset of visible symptoms
Proposed Start Date of Data Collection	01/07/2016
Proposed End Date of Project	16/04/2020
Supervisor	John McAlaney
Approver	John McAlaney

Summary - no more than 500 words (including detail on background methodology, sample, outcomes, etc.)

External Ethics Review

Does your research require external review through the NHS National Research Ethics Service (NRES) or through another external Ethics Committee?	No

Research Literature

Is your research solely literature based?	Yes
Will you have access to personal data that allows you to identify individuals OR access to confidential corporate or company data (that is not covered by confidentiality terms within an agreement or by a separate confidentiality agreement)?	No

There is nothing currently that assess who might be at risk of becoming an addict that doesn't rely on external observation. At school children are taught about the dangers of drug addiction and the number of young addicts appears to be on the decline, however the number of young alcoholics is on the increase and the treatment field is beginning to come into contact with young people in trouble with legal highs and currently there is the under researched problem of Digital Addiction which could well replace the more traditional types of addiction for the younger generation. This will be a mixed method project, using data from recovering addicts to reflect on their thoughts and beliefs prior to, or on the cusp of active addiction, to look for underlying patterns that may help with early detection of use or relapse for all kinds of addiction.

Appendix 2 Ethical Approval Study 2: Quantitative Analysis

Checklist

Bournemouth University

About Your Checklist	
Reference Id	21637
Status	Approved
Date Approved	30/07/2018 12:52:07
Date Submitted	30/07/2018 12:50:32

Researcher Details	
Name	Tessa Corner
Faculty	Faculty of Science & Technology
Status	Postgraduate Research (MRes, MPhil, PhD, DProf, EngD, EdD)
Course	Postgraduate Research - FST
Have you received external funding to support this research project?	No

Project Details	
Title	Thought feelings and beliefs of people who have suffered addiction
End Date of Project	31/12/2018
Proposed Start Date of Data Collection	01/08/2018
Original Supervisor	John McAlaney
Approver	Research Ethics Panel
Summary - no more than 500 words (including detail on background methodology, sample, outcomes, etc.)	

In the literature review gaps in current research were identified. The gap's related to people with addiction issues in their past being asked about their perception of themselves and their experiences of their world in the time proceeding or at the beginning of their addiction journey. Research has been done into events that occurred prior to their addiction, such as abuse (Banducci et al. 2014) or other traumatic event (Christo and Morris 2004) (Teixeira CAB 2017) (O'Brien et al. 2008). There has also been research into personality traits (Sarra et al. 2014), but there appears to be little exploration into how the addict themselves saw the world through their own feelings, thoughts and beliefs proceeding or in the early stages of their addiction. To investigate this three studies are proposed, this being the second study. The underlying ontology is that of critical realism, the assumption being that there is some authentic knowledge behind the experience of addiction, a partially accessible reality associated with addiction and being an addict which has both negative and positive aspects and is held at a societal level. The epistemology is contextualism, in that the knowledge gained from this research will be valid in certain contexts. The methodology will be non-positivism, accepting that there is more than one version of reality, closely related by their context. This is a quantitative study, using previously validated surveys and will be an online survey only using Qualtrix. The surveys will ask participants to rate various items on Likert type scales from when they were 15 and from the present day (presented in random order to reduce presentation bias).The theoretical framework for asking questions from an earlier period of life is that of the Reminiscence Bump. Data Analysis will be with SPSS. The questionnaires are as follows:Panas X: It asks participants to rate 60 different emotions without the need to explain. Participants are being asked to complete this survey from what they remember from the age of around 15 and what they feel like today. SPSS will look for common themes across addictions as well as changes experienced in recovery. Brief COPE: has been successfully used previously in alcoholic research (Hasking and Oei 2002). For this study the brief version will be used, it has two questions for each of the 14 identified coping styles and therefore has only 28 questions as opposed to the full 60, this it to reduce the amount of work required by the participants. Participants are being asked to complete this survey from what they remember from the age of around 15. WHO QoL: is being asked for the present day. This is a further study following on from the Hibbert and Best study of 2011 'Assessing recovery and functioning in former problem drinkers at different stages of their recovery journey', in that it is asking the same questions to participants with a wider variety of addiction experiences. The Qol has 28 questions and balances the 28 questions in the Brief COPE.

Iternal Ethics Review	
Does your research require external review through the NHS National Research Ethics Service (NRES) or through another external Ethics Committee?	No

Research Literature	
Is your research solely literature based?	No

Human Participants	
Does your research specifically involve participants who are considered vulnerable (i.e. children, those with cognitive impairment, those in unequal relationships—such as your own students, prison inmates, etc.)?	Yes
Is a DBS check check required?	No
Does the study involve participants age 16 or over who are unable to give informed consent (i.e. people with learning disabilities)? NOTE: All research that falls under the auspices of the Mental Capacity Act 2005 must be reviewed by NHS NRES.	No
Will the study require the co-operation of a gatekeeper for initial access to the groups or individuals to be recruited? (i.e. students at school, members of self-help group, residents of Nursing home?)	No
Will it be necessary for participants to take part in your study without their knowledge and consent at the time (i.e. covert observation of people in non-public places)?	No
Will the study involve discussion of sensitive topics (i.e. sexual activity, drug use, criminal activity)?	Yes
Are drugs, placebos or other substances (i.e. food substances, vitamins) to be administered to the study participants or will the study involve invasive, intrusive or potentially harmful procedures of any kind?	No
Will tissue samples (including blood) be obtained from participants? Note: If the answer to this question is 'yes' you will need to be aware of obligations under the Human Tissue Act 2004.	No

Could your research induce psychological stress or anxiety, cause harm or have negative consequences for the participant or researcher (beyond the risks encountered in normal life)?	Yes
Will the research involve the collection of audio materials?	No
Will your research involve the collection of photographic or video materials?	No
Will your research involve prolonged or repetitive testing?	No
Will financial or other inducements (other than reasonable expenses and compensation for time) be offered to participants?	No

Please explain below why your research project involves the above mentioned criteria (be sure to explain why the sensitive criterion is essential to your project's success). Give a summary of the ethical issues and any action that will be taken to address these. Explain how you will obtain informed consent (and from whom) and how you will inform the participant(s) about the research project (i.e. participant information sheet). A sample consent form and participant information sheet can be found on the Research Ethics website.

My research is looking for the thoughts feelings and beliefs of people who have experienced addiction, from a time proceeding their addiction and in their recovery. In my literature review I have identified that most of the research around addiction looks at circumstance surrounding addiction such as character traits, events that have happened to individuals, lacks in certain skills. Addictions also tend to be studied in isolation, so research may look at alcohol or drugs or food, but not all addictions together. There is very limited research into how the individual addict experienced their own lives, what they thought, felt and believed. For this reason I am asking participants to recall their emotions and coping skills from a time at the beginning of their addiction looking for themes and commonalities that are the same across addictions or maybe differ between addiction, I am looking to see if these mirror the themes identified in the thematic analysis taken from secondary sources. I am also looking for changes in these areas that have occurred since participants came into recovery. The ethical issues lie around asking participants to recall what may be a painful time in their past. To address this the questionnaire is online and totally voluntary, in the guidance it is made clear that a participant may withdraw at anytime by exiting the site, there are help and support numbers and websites provided in the information sheet and the participants are being made aware of the nature of the questionnaire before they start. Participants are also given a clear idea of what the purpose of the research is.

Appendix 3. Thematic Analysis Secondary source data

Overeaters Anonymous

All data was selected using a kindle version of the publication with the location of the quote being shown as ‘loc. ‘, representing the exact line location of the data extract, this removes any difficulty caused by different editions with different sized text.

Story 1

“During the next two years my own inner conflict increased. I was not overeating, I was thin, and I was a mass of self-will imposed on everyone."" (Overeaters-Anonymous 2014, loc. 380)

"Growing up, we believed that just being a loving person wasn't enough; we had to excel to be worthwhile." (Overeaters-Anonymous 2014, loc. 246)

"I was thin, men were calling me for dates, and life really seemed to be going my way. Yet something was terribly wrong. What was it? No matter what happened, no matter how tiny I was, self-hate still ate at my very soul” (Overeaters-Anonymous 2014, loc. 270)

"The thinner I became and the more I achieved, the worse I felt. I didn’t dare let people know this. They might find out how terrible I was.” (Overeaters-Anonymous 2014, loc. 361)

“Compulsive overeating is a disease of isolation, and my paralysing inability to call was part of my illness” (Overeaters-Anonymous 2014, loc. 423)

"yet the ability to love myself still eluded me; my heart was clouded with self-hate” (Overeaters-Anonymous 2014, loc. 429)

Story 3

“My self-hate, though was rampant, I obsessed over what I was eating and how to stay on a diet.” (Overeaters-Anonymous 2014, loc. 546)"

“I also hated myself and was having suicidal thoughts. I thought if I lost those 20 pounds (9kg), I wouldn’t hate myself anymore. (Overeaters-Anonymous 2014, loc. 550)

“Food obsession ruled my life and became my nasty little secret.” (Overeaters-Anonymous 2014, loc. 546)

Story 4

“Rather than freedom, I felt fear.” (Overeaters-Anonymous 2014, loc. 598)

“My rock bottom was less dramatic than in previous years; it was a sense of blackness so deep that I felt no way out, an intense loneliness and constant feelings of confusion and uselessness.” (Overeaters-Anonymous 2014, loc. 598)

“In my early years I thought I was always hungry, but my hunger was never satisfied.” (Overeaters-Anonymous 2014, loc. 589)

“Food was my only friend and worst enemy” (Overeaters-Anonymous 2014, loc. 598)

Story 5

“I kept eating and obsessing against my will, even when I wanted to be abstinent. It was hell on earth.” (Overeaters-Anonymous 2014, loc. 636)

“I endured strong craving and the obsessive desire to cram indiscriminate food into my body.” (Overeaters-Anonymous 2014, loc. 655)

“Powerlessness over food gradually destroyed my home, career and ability to drive a car.” (Overeaters-Anonymous 2014, loc. 636)

Story 7

“My primary abstinence is not from compulsive food categories but from thoughts like, ‘You are fat. You are not lovable until you look like this model. You don’t deserve to enjoy your food. You are bad, bad, bad!” (Overeaters-Anonymous 2014, loc. 745)"

Story 9

On going to a first OA meeting: “Guilt and shame were released” (Overeaters-Anonymous 2014, loc. 830)

Story 10

“I would take any opportunity to be alone to eat my binge foods, throw up, then eat more, only to throw up again. Then I would have to replenish the food so no one would find out. My day would end with exhaustion, fear, demoralisation and despair.” (Overeaters-Anonymous 2014, loc. 852)

"When a second graders Mum imposed a family diet to help her daughter reduce weight: I interpreted the diet as saying that my weight determined whether I was a good girl or not.” (Overeaters-Anonymous 2014, loc. 856)

On allowing her weight on the scales to affect each day. “It would be a good day if the numbers were ‘right and a bad day if I didn’t like them. Needless to say I stayed unhappy with this barometer” (Overeaters-Anonymous 2014, loc. 856)

“Ninety percent of my thoughts and efforts revolved around my compulsion to eat and obsession with my weight.”(Overeaters-Anonymous 2014, loc. 862)

“I had drawn imaginary lines based on morality, and then continually cross them. I would say, ‘I would never steal.’ But I stole from broken vending machines and also from my Mum’s

purse. The disease was consistently turning me into a person I did not want to become." (Overeaters-Anonymous 2014, loc. 862)

"After 25 years in the program, I began to see that self-hatred was my first addiction. I compulsively put myself down." (Overeaters-Anonymous 2014, loc. 867)

Story 11

"No matter how much I was able to keep food from entering my mouth, there was nothing to stop it entering my brain. I thought about food twenty-four hours a day, seven days a week." (Overeaters-Anonymous 2014, loc. 901)

Story 12

"We never talked about feelings in our family, and I grew up an 'emotional orphan'. I had no tools for dealing with life. I turned inwards and became more and more isolated." (Overeaters-Anonymous 2014, loc. 943)

"But my real solution for my pain was food. I began restricting, starving, overeating, compulsively exercising, bingeing and purging up to 15 times a day, starving between those times, exercising like a maniac, hating myself, isolating, and living in terror of people." (Overeaters-Anonymous 2014, loc. 947)

Story 13

"As I kid I was often afraid or bored. I do not know when I started using food to take the edge off my emotions, but I do remember feeling weird about food at a young age." (Overeaters-Anonymous 2014, loc. 992

"Taking the edge off life required more and more food, and my effort to eliminate all uncomfortable emotions blocked my ability to feel any emotions. I was deeply depressed, spending hours isolated in bed, eating myself sick." (Overeaters-Anonymous 2014, loc. 996)

"They didn't understand what the food did for me: it allayed my fears and boredom, telling me everything would be okay." (Overeaters-Anonymous 2014, loc. 1008)

"Food is my knee-jerk solution to life." (Overeaters-Anonymous 2014, loc. 1014)

Story 15

"Excess food was my ticket to oblivion, and I used it everyday" (Overeaters-Anonymous 2014, loc. 1014)

"Food was my great solace and reward, the sweetest thing in my life." (Overeaters-Anonymous 2014, loc. 1076)

"I believed in God, but he was disgusted by my gluttony in a world where people were starving."(Overeaters-Anonymous 2014, loc. 1094)

Story 16

“I felt it was most important for my outside to pass as normal and for others not to see the mess I was inside.” (Overeaters-Anonymous 2014, loc. 1118)

“My focus on food, weight, exercise and body image kept me from looking under the surface to confront key issues that fuelled my addictive nature.” (Overeaters-Anonymous 2014, loc. 1124)

“I believed I was not good enough.” (Overeaters-Anonymous 2014, loc. 1136)

“Anger and my critical, controlling nature were the most challenging defects for me.” (Overeaters-Anonymous 2014, loc. 1136)

Story 17

“I felt that God put me here but neglected to give me an instruction manual on how to live. It’s also clear to me that I am wired to eat. Inhaling enormous quantities of food was the best way I could cope with the pain of living.” (Overeaters-Anonymous 2014, loc. 1161)

“In the beginning I felt only that I didn’t fit in; by the end I was a complete outsider.” (Overeaters-Anonymous 2014, loc. 1166)

“I used food each day. Food was magic; it numbed me and gave me the ability to carry on.” (Overeaters-Anonymous 2014, loc. 1171)

Story 18

“The food came before people, family or friends. My best illustration of this came from the night when I was bingeing and my landlady upstairs started screaming for help. I did not go to her aid at once but went to throw up first.” (Overeaters-Anonymous 2014, loc. 1224)

Story 21

“I had a wife and two kids I loved, a house and a car, but food always came first. I clamped a smile on my fat face, but I was crying and dying inside.” (Overeaters-Anonymous 2014, loc. 1354)

“I stole food, ate burned or soiled food, and scrounged for food in rubbish bins.” (Overeaters-Anonymous 2014, loc. 1358)

“When I was 12years old, a classmate collapsed with a ruptured spleen. He’d barely hit the floor before I was plotting to steal his lunch.” (Overeaters-Anonymous 2014, loc. 1364)

Story 23

“In one form or another, fear dominated my life as a child.” (Overeaters-Anonymous 2014, loc. 1512)

“I was already convinced at age 7 or 8 that I was doomed to hell because I thought bad things and thinking was as bad as doing.” (Overeaters-Anonymous 2014, loc. 1512)

“A lot of years of pretence, role playing, stroke-seeking and fear had passed. The result was self-hatred, a feeling of uselessness, and feeling adrift, trapped, like a victim. All this I felt on the inside despite being a high-functioning, educated person on the outside.” (Overeaters-Anonymous 2014, loc. 1517)

“Sugar and refined carbs became for me what alcohol is to an alcoholic. I was addicted body and soul.” (Overeaters-Anonymous 2014, loc. 1523)

Story 24

“I panicked if I couldn’t get certain foods immediately.” (Overeaters-Anonymous 2014, loc. 1566)

“most people thought I looked healthy. But I felt like a worthless, lonely, desperate cow.” (Overeaters-Anonymous 2014, loc. 1566)

Story 25

“Before OA the food kept me numb; I felt neither pain nor the joy of life.” (Overeaters-Anonymous 2014, loc. 1634)

Story 26

“Sugar gave me release from care from craving. I felt like a heroin addict must feel.” (Overeaters-Anonymous 2014, loc. 1646)

“I had an ounce of self-pity at the start of that summer, I had tons of self-hate at the end.” (Overeaters-Anonymous 2014, loc. 1651)

Story 27

“I was depressed, angry, alone, morbidly obese and hopeless” (Overeaters-Anonymous 2014, loc. 1699)

“I am no longer tired, depressed, angry, alone, or hopeless.” (Overeaters-Anonymous 2014, loc. 1716)

“For the longest time, I had believed I was the only person who did these things with food.” (Overeaters-Anonymous 2014, loc. 1705)

Story 28

“I was filled with self-hatred and didn’t want anyone to know. Most of my life I allowed others to influence me and I was constantly seeking approval. I never felt I was good enough.” (Overeaters-Anonymous 2014, loc. 1744)

Story 29

“I under ate and compulsively exercised to cope with the intense pain of loss. I discovered I could vomit with ease, and I was disgusted with myself after each episode. If I was unhappy I would take up to thirty laxative’s per day.” (Overeaters-Anonymous 2014, loc. 1803)

“I thought I was evil and went to a priest for a prayer to remove the evil.” (Overeaters-Anonymous 2014, loc. 1803)

“Each day I would go to work, function, and then go home to hell.” (Overeaters-Anonymous 2014, loc. 1814)

Story 30

“I had become emotionally dependant on food…Food was my way of dealing with the hurt and shame I felt.” (Overeaters-Anonymous 2014, loc. 1837)

“I believe I was genetically predisposed to addiction; it ran in my family. Growing up I was fixated on sugar.” (Overeaters-Anonymous 2014, loc. 1837)

Story 31

“Early on I developed a liking for favourite foods and went to increasing lengths to get them. The benign habit of chasing a pleasing taste soon became a ritual escape from my feelings and responsibilities. My normal emotional development suffered because I demanded more from food than it was ever intended to provide.” (Overeaters-Anonymous 2014, loc. 1885)

“I reacted to life with fear, anxiety and aggression. I was ashamed of my emotions; they seemed so big.” (Overeaters-Anonymous 2014, loc. 1889)

“As I got older, my addictions grew to include drugs, alcohol and sex. If something felt good, I used it until it didn’t work anymore,” (Overeaters-Anonymous 2014, loc. 1901)

Story 32

“I’ve been a compulsive overeater since I was 5 years old. My mother would send me to kindergarten with a snack and warned me not to eat too much, but I couldn’t stop.” (Overeaters-Anonymous 2014, loc. 1934)

“I was isolated emotionally and socially, and I had wild mood swings and rages.” (Overeaters-Anonymous 2014, loc. 1945)

Story 34

“I was depressed and wanted to be apart from people because I couldn’t keep up the ‘happy person’ image very long. But I held onto being thin; If I was thin, then I didn’t have a problem with food. I was in control. And if I was thin, I wasn’t the same me who had felt so unlikeable as a chubby kid.” (Overeaters-Anonymous 2014, loc. 2043)

“One of my earliest memories is of sneaking into our back garden and eating the stale bread my mother had thrown out for the birds, an act unremarkable in itself. What remained with me are the feelings of calm and tranquillity that came when food hit my stomach. I remembered that and chased it through the first thirty-two years of my life to a dead end of misery.” (Overeaters-Anonymous 2014, loc. 2022)

Story 35

“I was overwhelmed with a toxic load of shame that I had tried desperately to escape for years: shame for being gay; for being fat, short and bald; for my alcoholic father’s suicide when I was 7. I had suffered the trauma of my mother’s death from a heart attack when I was in college, and felt unbearable shame about the humiliating sexual abuse I experienced from an obese member of the clergy when I was 12. To numb the shame, my solution had always been to binge on donuts and chocolate cake until I was sick.” (Overeaters-Anonymous 2014, loc. 2075)

Story 36

“I was spiritually dead and was trying to fill a hole inside of me with food.” (Overeaters-Anonymous 2014, loc. 2127)

“When I was eating, I was a shy, introverted, fearful person.” (Overeaters-Anonymous 2014, loc. 2138)

Story 37

“My issues with food and body image started in childhood. Some of my earliest and most vivid memories deal with the shame I felt around my body and my eating.” (Overeaters-Anonymous 2014, loc. 2160)

Story 39

“I was always afraid I wasn’t good enough; I was a failure despite how much I might accomplish. And I had always numbed my feelings with food, not recognising what I was doing.” (Overeaters-Anonymous 2014, loc. 2281)

Story 40

“I was suicidal and homicidal and didn’t care if I lived or died.” (Overeaters-Anonymous 2014, loc. 2322)

Story 41

“I hated my body; couldn’t stop eating compulsively; had no friends or boyfriend; was mean and nasty to my family; and was full of fear, resentment and self-pity.” (Overeaters-Anonymous 2014, loc. 2353)

AA part II

Story 1

“When I was eight or nine years old. Life suddenly became very difficult. Feelings began to emerge that I did not understand. Depression crept into my life as I started to feel alone, even in crowded rooms. In fact, life didn’t make much sense to me at all. It’s hard to say what sparked all of this, to pinpoint one fact or event that changed everything forever. The fact of the matter was, I was miserable from early on in my life.” (Alcoholics-Anonymous 2008, loc. 3415)

“I remember isolating on the playground, watching all the other children laughing and playing and smiling, and not feeling like I could relate at all. I felt different. I didn’t feel I was one of them. Somehow, I thought I didn’t fit in.” (Alcoholics-Anonymous 2008, loc. 3415)

“The psychiatrist started me on some medication, and the problems in school started to clear up. Even some of the depression began to ease up for a bit. However, something still seemed fundamentally wrong.” (Alcoholics-Anonymous 2008, loc. 3428)

"As the feelings of hopelessness and depression progressed, so did my drinking. Thoughts of suicide came more and more frequently. It felt as if things were never going to change.” (Alcoholics-Anonymous 2008, loc. 3442)

Story 2

"The important thing I lost was my own self-respect. I could feel fear coming into my life. I couldn’t face people. I couldn’t look then straight in the eyes.” (Alcoholics-Anonymous 2008, loc. 3537)

“I got so that I hid quite a bit of the time, wouldn’t answer the phone, and stayed by myself as much as I could.” (Alcoholics-Anonymous 2008, loc. 3537)

Story 3

“I never knew which came first, the thinking or the drinking. If I could only stop thinking, I wouldn’t drink.” (Alcoholics-Anonymous 2008, loc. 3592)

Story 5

“If you saw who I really was, you would turn away in disgust or use my many weaknesses to destroy me. One way or the other I was convinced I’d be hurt. I couldn’t allow that to happen, so I kept the real me veiled behind a force field of rough edged attitude. How I got to this place is still a mystery to me.”(Alcoholics-Anonymous 2008, loc. 3737)

“In my early years I began to be bothered by feelings that I didn’t fit in.” (Alcoholics-Anonymous 2008, loc. 3737)

“Drinking released me from the suffocating fear, the feelings of inadequacy, and the nagging voices at the back of my head that told me I would never measure up. All those things melted away when I drank. The bottle was my friend, my companion, a portable vacation. Whenever life was too intense, alcohol would take the edge off or obliterate the problem altogether for a time.” (Alcoholics-Anonymous 2008, loc. 3744)

“Outwardly I was a young woman who was comfortable with herself. Yet ever so slowly these actions that I knew deep down were wrong started eating holes in me. My first reaction was to drink.” (Alcoholics-Anonymous 2008, loc. 3757)

“I wasn’t a nice person sober. I was angry and frightened, and I wanted you to feel as terrible as I did.”(Alcoholics-Anonymous 2008, loc. 3770)

“It took me three months to realise that I was my problem and drinking made my problem worse.” (Alcoholics-Anonymous 2008, loc. 3790)

Story 6

“For some reason, despite the resources available to me growing up, I developed into an adult woman terrified of the world around me. I was extremely insecure, though I was careful to hide this fact. I was unable to handle and understand my emotions; I always felt as if everyone else knew what was going on and what they were supposed to be doing, and my life was the only one delivered without an instruction book.”(Alcoholics-Anonymous 2008, loc. 3852)

Story 7

"I grew up feeling I was the only thing keeping my family together. This, compounded by the fear of not being good enough, was a lot of pressure for a little girl.” (Alcoholics-Anonymous 2008, loc. 3957)

Story 8

"I always wondered who I was. As a child isolated in the country, I made up stories, inventing myself along with imaginary companions to play with. Later, when we moved to a large city and I was surrounded by kids, I felt separate, like an outcast. Although I learned to go along with the cultural norm as I grew up, still, underneath, I felt different.” (Alcoholics-Anonymous 2008, loc. 4067)

“Behind my façade, my real life seemed just out of reach. I wanted to consider myself grown up, but inside I felt small and helpless, hardly there at all. I would look at my friends – delightful, interesting, good people – and try to define myself through them. If they saw something in me that made them want to be with me, I must have something to offer. But their love for me was not a substitute for loving myself; it didn’t fill the emptiness.” (Alcoholics-Anonymous 2008, loc. 4079)

Story 10

“Alcohol helped me to hide my fears; the ability to converse was almost an almost miraculous gift to a shy and lonely individual.” (Alcoholics-Anonymous 2008, loc. 4306)

Story 11

“My cure for drinking was isolation. I would get up, got to work, come home, watch TV, and go to bed. It got to the point where I couldn’t remember anything good that ever happened. I couldn’t imagine anything good ever happening in the future. Life had shrunk down to an endless, awful now. The depression became so bad that only medical treatment kept me from killing myself.” (Alcoholics-Anonymous 2008, loc. 4431)

Story 12

“From the very beginning I felt different and unwanted. At a very young age, as children do, I had to make sense of my life, so I came to the conclusion that I was bad and God knew I was bad, so God make me handicapped to punish me.” (Alcoholics-Anonymous 2008, loc. 4483)

“Children were very cruel and made fun of me. I could tell you many stories of times I was treated badly, and although the stories would be different, the feeling was always the same. I was not good enough, and I hurt.” (Alcoholics-Anonymous 2008, loc. 4490)

Story 13

“When I try to reconstruct what my life was like ‘before’ I see a coin with two faces. One, the side I turned to myself and the world was respectable – even, in some ways, distinguished. I was a father. Husband, taxpayer, homeowner. I was clubman, athlete, musician, author, editor, aircraft pilot and world traveller. I was listed in Who’s Who in America as an American who, by distinguished achievement, had arrived. The other side of the coin was sinister, baffling. I was inwardly unhappy most of the time. There would be times when respectability and achievement seemed insufferably dull – I had to break out.”(Alcoholics-Anonymous 2008, loc. 4563)

Story 17

“My earliest memories included threats by my parents to throw me out onto the street for the slightest act of disobedience. The thought of being forced to live on the street is pretty terrifying for a six-year-old. Those threats, coupled with a fair amount of physical punishment kept me frightened and obedient.” (Alcoholics-Anonymous 2008, loc. 5029)

“Like many alcoholics, I had spent much of my life feeling different, as though I just didn’t quite fit in. I covered those feelings and my low self-esteem by being one of the smartest people in any group, if not the smartest. Additionally, I became a performer in crowds, always

ready with a quick joke to point out the humour in any situation." (Alcoholics-Anonymous 2008, loc. 5029)

"I had classmates whose names were household word that connoted wealth. I was ashamed, ashamed of my family, and ashamed of myself. I was terrified of being found out. I knew that if others discovered who I really was, they wouldn't like me and I would be left alone, worthless and alone. Then I discovered alcohol." (Alcoholics-Anonymous 2008, loc. 5036)

AA Part III

Story 2

"Despite my active church and school life as a child, I had never felt really comfortable; I was actually very nervous and insecure around people and most of the time I forced myself to be outgoing like my parents because thought it was my duty." (Alcoholics-Anonymous 2008, loc. 5270)

Story 10

"I spent my life 'acting as if' – either acting as if they knew (I didn't ask teachers questions in school; they might find out I didn't know the answer) or acting as if I didn't care. I always felt as though everyone else had been given the directions to life and I had been somewhere else when God was handing them out." (Alcoholics-Anonymous 2008, loc. 5988)

"The concept of a set goal, work for that goal, achieve that goal was foreign to me. You either 'had it' or you didn't, and if you didn't, you couldn't let on – you might look bad." (Alcoholics-Anonymous 2008, loc. 5993)

"I thought I had to be with my friends all the time. I was afraid that if they spent any time without me, they might begin to wonder, 'Why do I hang out with her anyway?' They might realise that they had a better time without me. And they might tell other people, who would tell other people, and I'd be alone." (Alcoholics-Anonymous 2008, loc. 6007)

"social conversation was a skill that I never acquired. When I met someone, I felt totally inadequate. To me, when I said 'Hi my name is___,' there followed a deafening silence, as if they were thinking, 'So?'" (Alcoholics-Anonymous 2008, loc. 6014)

Story 14

"I grew up believing that one had to be totally self-sufficient, for one never dared depend on another human being. I thought that life was a pretty simple thing; you simply made a plan for your life, based upon what you wanted, and then you needed only the courage to go after it. In my late teens I became aware of emotions I'd not counted on; restlessness, anxiety, fear, and insecurity. The only kind of security I knew anything about at the time was material security, and I decided that all these intruders would vanish immediately if only I had a lot of money." (Alcoholics-Anonymous 2008, loc. 631)

“Apparently I had grown physically at the customary rate of speed, and I had even acquired an average amount of intellectual training in the intervening years, but there had been no emotional maturity at all. I realise now that this phase of my development had been arrested by my obsession with self, and my egocentricity had reached such proportions that adjustment to anything outside my personal control was impossible for me.” (Alcoholics-Anonymous 2008, loc. 6382)

Narcotics Anonymous (using chapter names)

I found

“I just remember going through life feeling different, feeling deprived. I never felt quite comfortable wherever I was, with whatever I had at any given time. I grew up in a fantasy world. Things on the other side of the fence always looked better.” (Narcotics-Anonymous 2008, loc. 1934)

Mid Pacific

“I was born in Southern California, in a loving middle class family. Both my sister and I were wanted, loved children and were shown that in every way. As far back as I can remember, I have felt separate from this family and all of life. Of course I am talking of an intense fear of life. I cannot remember feeling the simplicity of being a child. I had an addict’s personality growing up, self will run riot. I always wanted my own way, and if I didn’t get it I sure let someone know. Growing up in southern California, I seemed to get all the normal things, going to the beach, getting into sports, yet always the fears and feelings of inadequacy never let me live up to my potential.” (Narcotics-Anonymous 2008, loc. 2030)

If you want

“For many years of my life I felt that the world had dealt me a cruel hand, which left me with many inadequate feelings. Fear ate a hole in me that I was never able to fill with drugs and alcohol.” (Narcotics-Anonymous 2008, loc. 2119)

“Control was the name of the game. I tried to control everyone in our little family and outside,” (Narcotics-Anonymous 2008, loc. 2125)

“It did not matter to me what lengths I had to go to in order to gain love and approval from everyone. Up went the false front with more dishonesty and deceptions. I was to spend many years of my life trying to be something that I was not.” (Narcotics-Anonymous 2008, loc. 2130)

Fearful mother

“I wanted to be a good wife. I wanted to be involved in society but never felt part of it.” (Narcotics-Anonymous 2008, loc. 2218)

“I went from one doctor to another asking for help. I went for counselling feeling everything will be alright now, but on the inside was still saying, ‘What is wrong?’ I was changing jobs, changing doctors, changing drugs, trying different books, religions, hair colours. I moved from one area to another, changed friends and moved furniture. I went on vacations and also remained hidden in my home – so many things through the years – constantly feeling, I’m wrong, I’m different, I’m a failure” (Narcotics-Anonymous 2008, loc. 2218)

I was different

“Thinking back I must have taken one look at life and decided I didn’t want any part of it. I came from a ‘good old-fashioned’ upper middle class broken home. I can’t remember a time when I haven’t been strung out. As a small child, I found out I could ease pain with food, and here my drug addiction began.” (Narcotics-Anonymous 2008, loc. 2338)

Sowing

“From my early childhood, I had felt like and outsider. In elementary school I was never invited to parties and had no friends. I became a real trouble maker. If I couldn’t get love at least I could get attention. At home, I felt as if I was standing in my parents’ way. My parents were busy with their careers and did the best they could.” (Narcotics-Anonymous 2008, loc. 2955)

The spirit

“I didn’t like my own belongings or even my parents’ names; I always wanted to be someone else. I wanted to be powerful, capable, and prestigious. I wanted to be grown up.” (Narcotics-Anonymous 2008, loc. 3085)

At the end

"As far back as I can remember I have needed to escape from myself and my feelings. As a child I lived in the world of books and fantasy in an effort to escape from emotions like fear, shame inadequacy, insecurity, inferiority, and oversensitivity. I became someone else. I went away from my family as often as I could to experience something different.” (Narcotics-Anonymous 2008, loc. 3307)

One third step

“Even though they loved me very much, I felt abandoned by my natural parents. I believed that I was unusually lucky to have a family that loved me, but that I didn’t really deserve one. I felt different, alone, less than. And I knew there was something that I could do to make myself feel better, only I didn’t know what it was.” (Narcotics-Anonymous 2008, loc. 3438)

“Addiction was not learned behaviour. I was an addict for as long as I can remember. I first used fantasy to get out of myself. I would dress up as Superman and run around with my

arms out in front of me, as if I could fly. I badly wanted to be a superhero." (Narcotics-Anonymous 2008, loc. 3490)

I'm so grateful

"Growing up I was attracted to the people in my community who lived the street life. I looked up to them and aspired to imitate them. This was certainly not the attitude of everyone else in my community. Several of my friends saw these people as nothing more than 'community bloodsuckers,' worthy of neither praise nor respect. I had a sister and brother with graduate degrees who served as excellent role models, so it's difficult to explain why I was drawn to the streets. Maybe it was the loneliness and emptiness I felt as a child. Or maybe it was my longing for acceptance, or my need to feel like I 'was somebody.'"(Narcotics-Anonymous 2008, loc. 5287)

"As a child I felt isolated from my family and community and never really fit in with any particular component of society. I was always sad and depressed, and pot to a small degree, freed me from my isolation, pain and loneliness." (Narcotics-Anonymous 2008, loc. 5294)

Speaking

"The times I pulled my head out of a book long enough to speak, my fears were only reinforced." (Narcotics-Anonymous 2008, loc. 5357)

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"When I left the protection of my neighbourhood to enter secondary school I was scared. Anger became my best defence and, at the age of fourteen I found drugs." (Narcotics-Anonymous 2008, loc. 5441)

Appendix 4 – Theme Table

Theme	Sub-Theme	Description	Quotes
Feeling different		Feelings of not fitting in with others, being an outsider or outcast in one's own environment	'In the beginning I felt only that I didn't fit in; by the end I was a complete outsider.' (OA 2014). 'Watching all the other children laughing and playing and smiling, and not feeling like I could relate at all. I felt different. I didn't feel I was one of them. Somehow, I thought I didn't fit in.' (AA 2008). 'The psychiatrist started me on some medication, and the problems in school started to clear up. Even some of the depression began to ease up for a bit. However, something still seemed fundamentally wrong.' (AA 2008). 'In my early years I began to be bothered by feelings that I didn't fit in.' (AA 2008). 'I always felt as if everyone else knew what was going on and what they were supposed to be doing, and my life was the only one delivered without an instruction book.' (AA 2008). 'I felt separate, like an outcast. Although I learned to go along with the cultural norm as I grew up, still, underneath, I felt different.' (AA 2008). 'From the very beginning I felt different and unwanted. (AA 2008). 'Like many alcoholics, I had spent much of my life feeling different, as though I just didn't quite fit in.' (AA 2008). 'I always felt as though everyone else had been given the directions to life and I had been somewhere else when God was handing them out.' (AA 2008). 'I just remember going through life feeling different, feeling deprived.' (NA 2008). 'As far back as I can remember, I have felt separate from this family and all of life.' (NA 2008). 'For many years of my life I felt that the world had dealt me a cruel hand,' (NA 2008). 'I wanted to be a good wife. I wanted to be involved in society but never felt part of it, constantly feeling, I'm wrong, I'm different, I'm a failure' (NA 2008). 'From my early childhood, I had felt like and outsider. In elementary school I was never invited to parties and had no friends. I became a real trouble-maker.' (NA 2008).
Emotional pain		Being in conflict with oneself, acting against one's own will and feeling the pain of it, failing	During the next two years my own inner conflict increased.' (OA 2014). 'The thinner I became and the more I achieved, the worse I felt.' (OA 2014). 'My rock bottom was less dramatic than in previous years; it was a sense of blackness so deep that I felt no way out.' (OA 2014). 'I kept eating and obsessing against my will, even when I wanted to be abstinent. It was hell on earth.' (OA 2014). 'My day would end with exhaustion, fear, demoralisation and despair.' (OA 2014). On allowing her weight on the scales to affect each day. 'It would be a good day if the

		one's own self expectations	numbers were 'right and a bad day if I didn't like them. Needless to say I stayed unhappy with this barometer.' (OA 2014). 'But my real solution for my pain was food.' (OA 2014). 'My effort to eliminate all uncomfortable emotions blocked my ability to feel any emotions. I was deeply depressed,' (OA 2014). 'I clamped a smile on my fat face, but I was crying and dying inside.' (OA 2014). 'I was depressed, angry, alone, morbidly obese and hopeless' (OA 2014). 'I under ate and compulsively exercised to cope with the intense pain of loss.' (OA 2014). 'Each day I would go to work, function, and then go home to hell.' (OA 2014). 'I was depressed and wanted to be apart from people because I couldn't keep up the 'happy person' image very long.' (OA 2014). 'I was suicidal and homicidal and didn't care if I lived or died.' (OA 2014). 'The fact of the matter was, I was miserable from early on in my life.' (AA 2008). 'As the feelings of hopelessness and depression progressed, so did my drinking. Thoughts of suicide came more and more frequently. It felt as if things were never going to change.' (AA 2008). 'But their love for me was not a substitute for loving myself; it didn't fill the emptiness.' (AA 2008). 'Life had shrunk down to an endless, awful now. The depression became so bad that only medical treatment kept me from killing myself.' (AA 2008). 'Children were very cruel and made fun of me. I could tell you many stories of times I was treated badly, and although the stories would be different, the feeling was always the same. I was not good enough, and I hurt.' (AA 2008). 'As a small child, I found out I could ease pain with food, and here my drug addiction began.' (NA 2008). 'I was always sad and depressed, and pot to a small degree, freed me from my isolation, pain and loneliness.' (NA 2008).
Negative feelings towards self	Inferred	Using outside information to derive a certain picture of how one should be, failing to achieve it and punishing oneself mentally for the failure	'Growing up, we believed that just being a loving person wasn't enough; we had to excel to be worthwhile.' (OA 2014). 'The disease was consistently turning me into a person I did not want to become.' (OA 2014). 'After 25 years in the program, I began to see that self-hatred was my first addiction. I compulsively put myself down.' (OA 2014). 'I believed in God, but he was disgusted by my gluttony in a world where people were starving.' (OA 2014). 'I interpreted the diet as saying that my weight determined whether I was a good girl or not.' (OA 2014). 'I thought I was evil and went to a priest for a prayer to remove the evil.' (OA 2014). 'Most of my life I allowed others to influence me and I was constantly seeking approval. I never felt I was good enough.' (OA 2014). 'So I came to the conclusion that I was bad and God knew I was bad, so God make me handicapped to punish me.' (AA 2008). 'I believed that I was unusually lucky to have a family that loved me, but

			that I didn't really deserve one.' (NA 2008). 'At home, I felt as if I was standing in my parents' way. My parents were busy with their careers and did the best they could.' (NA 2008). 'As a child I lived in the world of books and fantasy in an effort to escape from emotions like fear, shame inadequacy, insecurity, inferiority, and oversensitivity.' (NA 2008). 'Maybe it was the loneliness and emptiness I felt as a child. Or maybe it was my longing for acceptance, or my need to feel like I 'was somebody.' (NA 2008).
Negative feelings towards self	Internally generated	Holding negative beliefs about oneself and believing them to be true.	'no matter how tiny I was, self-hate still ate at my very soul' (OA 2014). 'Yet the ability to love myself still eluded me; my heart was clouded with self-hate' (OA 2014). 'My self-hate, though was rampant.' OA 2014). 'I also hated myself and was having suicidal thoughts. I thought if I lost those 20 pounds (9kg)., I wouldn't hate myself anymore.' (OA 2014). 'Constant feelings of confusion and uselessness.' (OA 2014). 'My primary abstinence is not from compulsive food categories but from thoughts like; 'You are fat. You are not lovable until you look like this model. You don't deserve to enjoy your food. You are bad, bad, bad!'' (OA 2014). 'I was already convinced at age 7 or 8 that I was doomed to hell because I thought bad things and thinking was as bad as doing.' (OA 2014). 'I began restricting, starving, overeating, compulsively exercising, bingeing and purging up to 15 times a day, starving between those times, exercising like a maniac, hating myself.' (OA 2014). 'I believed I was not good enough.' (OA 2014). 'The result was self-hatred, a feeling of uselessness, and feeling adrift, trapped, like a victim. (OA 2014). 'Most people thought I looked healthy. But I felt like a worthless, lonely, desperate cow.' (OA 2014). 'I had an ounce of self-pity at the start of that summer, I had tons of self-hate at the end.' (OA 2014). 'I was filled with self-hatred and didn't want anyone to know. (OA 2014). 'I discovered I could vomit with ease, and I was disgusted with myself after each episode.' (OA 2014). 'I was always afraid I wasn't good enough; I was a failure despite how much I might accomplish. (OA 2014). 'I hated my body.' (OA 2014). 'If you saw who I really was, you would turn away in disgust.' (AA 2008). 'Behind my façade, my real life seemed just out of reach. I wanted to consider myself grown up, but inside I felt small and helpless, hardly there at all.' (AA 2008). 'I was not good enough, and I hurt.' (AA 2008). 'I covered those feelings and my low self-esteem by being one of the smartest people in any group, if not the smartest.' (AA 2008). 'I seemed to get all the normal things, going to the beach, getting into sports, yet always the fears and feelings of inadequacy never let me live up to my potential.' (NA 2008). 'For many years

			of my life I felt that the world had dealt me a cruel hand, which left me with many inadequate feelings.' (NA 2008).
Fear		Fear as an almost constant feeling	'Rather than freedom, I felt fear.' (OA 2014). 'My day would end with exhaustion, fear, demoralisation and despair.' (OA 2014). 'As a kid I was often afraid or bored.' (OA 2014). 'They didn't understand what the food did for me: it allayed my fears and boredom.' (OA 2014). 'In one form or another, fear dominated my life as a child.' (OA 2014). 'I panicked if I couldn't get certain foods immediately.' (OA 2014). 'I reacted to life with fear, anxiety and aggression.' (OA 2014). 'When I was eating, I was a shy, introverted, fearful person.' (OA 2014). 'Drinking released me from the suffocating fear,' (AA 2008). 'I wasn't a nice person sober. I was angry and frightened,'(AA 2008). 'Of course I am talking of an intense fear of life. I cannot remember feeling the simplicity of being a child.' (NA 2008). 'Fear ate a hole in me that I was never able to fill with drugs and alcohol.' (NA 2008). 'This, compounded by the fear of not being good enough, was a lot of pressure for a little girl.' (AA 2008).
Fear	Fear of being found out	Description of fear of being found wanting, not good enough	'I began restricting, starving, overeating, compulsively exercising, bingeing and purging up to 15 times a day, starving between those times, exercising like a maniac, hating myself, isolating, and living in terror of people.' (OA 2014). 'A lot of years of pretence, role playing, stroke-seeking and fear had passed.' (OA 2014). 'I was always afraid I wasn't good enough;' (OA 2014). 'and was full of fear, resentment and self-pity.' (OA 2014). 'I could feel fear coming into my life. I couldn't face people. I couldn't look then straight in the eyes.' (AA 2008). 'I was ashamed, ashamed of my family, and ashamed of myself. I was terrified of being found out. (AA 2008).
Fear	Things outside of the self	Fear of others, the world, duty.	'I developed into an adult woman terrified of the world around me.' (AA 2008). 'I was actually very nervous and insecure around people and most of the time forced myself to be outgoing like my parents because thought it was my duty.' (AA 2008). 'I was afraid that if they spent any time without me, they might begin to wonder, 'Why do I hang out with her anyway?'. (AA 2008). 'In my late teens I became aware of emotions I'd not counted on; restlessness, anxiety fear, and insecurity." (AA 2008). 'Alcohol helped me to hide my fears; the ability to converse was almost an almost miraculous gift.' (AA 2008). 'My earliest memories included threats by my parents to throw me out onto the street for the slightest act of disobedience. The thought of being forced to live on the street is pretty terrifying for a six-year-old. Those threats, coupled with a fair amount of

			physical punishment kept me frightened and obedient.' (AA 2008). 'As a child I lived in the world of books and fantasy in an effort to escape from emotions like fear, shame inadequacy, insecurity, inferiority.' (NA 2008). 'The times I pulled my head out of a book long enough to speak, my fears were only reinforced.' (NA 2008). 'When I left the protection of my neighbourhood to enter secondary school I was scared.' (NA 2008).
Shame		Description of believing we have failed some expected social norm, that we are somehow 'less than' others.	On-going to a first OA meeting: 'Guilt and shame were released' (OA 2014). 'I was overwhelmed with a toxic load of shame that I had tried desperately to escape for years: shame for being gay; for being fat, short and bald; for my alcoholic father's suicide when I was 7. I had suffered the trauma of my mother's death from a heart attack when I was in college and felt unbearable shame about the humiliating sexual abuse I experienced from an obese member of the clergy when I was 12.' (OA 2014). 'My issues with food and body image started in childhood. Some of my earliest and most vivid memories deal with the shame I felt around my body and my eating.' (OA 2014). 'I had classmates whose names were household word that connoted wealth. I was ashamed, ashamed of my family, and ashamed of myself.' (AA 2008). 'As a child I lived in the world of books and fantasy in an effort to escape from emotions like fear, shame inadequacy, insecurity, inferiority, and oversensitivity.' (NA 2008).
Coping	Obsession	Over-ridding preoccupation with substance of addiction	'Compulsive overeating is a disease of isolation, and my paralysing inability to call was part of my illness' (OA 2014). 'Food obsession ruled my life and became my nasty little secret.' (OA 2014). 'I kept eating and obsessing against my will,' (OA 2014). 'I endured strong craving and the obsessive desire to cram indiscriminate food into my body.' (OA 2014). 'Ninety percent of my thoughts and efforts revolved around my compulsion to eat and obsession with my weight.'(OA 2014). 'I compulsively put myself down.' (OA 2014). 'No matter how much I was able to keep food from entering my mouth, there was nothing to stop it entering my brain. I thought about food twenty-four hours a day, seven days a week.' (OA 2014). 'I began restricting, starving, overeating, compulsively exercising, bingeing and purging up to 15 times a day, starving between those times, exercising like a maniac,' (OA 2014). 'I stole food, ate burned or soiled food, and scrounged for food in rubbish bins.' (OA 2014). 'When I was 12 years old, a classmate collapsed with a ruptured spleen. He'd barely hit the floor before I was plotting to steal his lunch.' (OA 2014). 'Sugar and refined carbs became for me what alcohol is to an alcoholic. I was addicted body and soul.' (OA

			2014). ‘I panicked if I couldn’t get certain foods immediately.’ (OA 2014). ‘I under ate and compulsively exercised to cope with the intense pain of loss. . .’ (OA 2014). ‘I believe I was genetically predisposed to addiction; it ran in my family. Growing up I was fixated on sugar.’ (OA 2014). ‘Early on I developed a liking for favourite foods and went to increasing lengths to get them.’ (OA 2014). ‘I’ve been a compulsive overeater since I was 5 years old. My mother would send me to kindergarten with a snack and warned me not to eat too much, but I couldn’t stop.’ (OA 2014). ‘What remained with me are the feelings of calm and tranquillity that came when food hit my stomach. I remembered that and chased it through the first thirty-two years of my life to a dead end of misery.’ (OA 2014). ‘I hated my body; couldn’t stop eating compulsively.’ (OA 2014). ‘I never knew which came first, the thinking or the drinking. If I could only stop thinking, I wouldn’t drink.’ (AA 2008). ‘I realise now that this phase of my development had been arrested by my obsession with self, and my egocentricity had reached such proportions that adjustment to anything outside my personal control was impossible for me.’ (AA 2008).
Coping	Wanting to escape	Wanting to change how one felt, to escape the present emotional reality	‘Excess food was my ticket to oblivion, and I used it every day’ (OA 2014). ‘I used food each day. Food was magic; it numbed me and gave me the ability to carry on.’ (OA 2014). ‘Early on I developed a liking for favourite foods and went to increasing lengths to get them. The benign habit of chasing a pleasing taste soon became a ritual escape from my feelings and responsibilities. (OA 2014). ‘One of my earliest memories is of sneaking into our back garden and eating the stale bread my mother had thrown out for the birds, an act unremarkable in itself. What remained with me are the feelings of calm and tranquillity that came when food hit my stomach. I remembered that and chased it through the first thirty-two years of my life to a dead end of misery.’ (OA 2014). ‘Drinking released me from the suffocating fear, the feelings of inadequacy, and the nagging voices at the back of my head that told me I would never measure up.’ (AA 2008). ‘I grew up in a fantasy world. Things on the other side of the fence always looked better.’ (NA 2008). ‘Thinking back I must have taken one look at life and decided I didn’t want any part of it.’ (NA 2008). ‘I didn’t like my own belongings or even my parents’ names; I always wanted to be someone else. I wanted to be powerful, capable, and prestigious. I wanted to be grown up.’ (NA 2008). ‘As far back as I can remember I have needed to escape from myself and my feelings. As a child I lived in the world of books and fantasy in an effort to escape from emotions.’ (NA 2008). ‘I felt different, alone, less

			than. And I knew there was something that I could do to make myself feel better, only I didn't know what it was.' (NA 2008). 'I first used fantasy to get out of myself. I would dress up as Superman and run around with my arms out in front of me, as if I could fly. I badly wanted to be a superhero.' (NA 2008).
Coping	Hiding aspects of self	Trying to stop others finding out the level of personal suffering by hiding it	'I didn't dare let people know this. They might find out how terrible I was.' (OA 2014). 'Food obsession ruled my life and became my nasty little secret.' (OA 2014). 'I would take any opportunity to be alone to eat my binge foods, throw up, then eat more, only to throw up again. Then I would have to replenish the food so no one would find out. (OA 2014). 'I felt it was most important for my outside to pass as normal and for others not to see the mess I was inside.' (OA 2014). 'I clamped a smile on my fat face, but I was crying and dying inside.' (OA 2014). 'The result was self-hatred, a feeling of uselessness, and feeling adrift, trapped, like a victim. All this I felt on the inside despite being a high-functioning, educated person on the outside. (OA 2014). 'Most people thought I looked healthy. But I felt like a worthless, lonely, desperate cow.' (OA 2014). 'Each day I would go to work, function, and then go home to hell.' (OA 2014). 'I got so that I hid quite a bit of the time, wouldn't answer the phone, and stayed by myself as much as I could.' (AA 2008). 'I kept the real me veiled behind a force field of rough edged attitude. How I got to this place is still a mystery to me.' (AA 2008). 'Outwardly I was a young woman who was comfortable with herself. Yet ever so slowly these actions that I knew deep down were wrong started eating holes in me. My first reaction was to drink.' (AA 2008). 'Alcohol helped me to hide my fears; the ability to converse was almost an almost miraculous gift to a shy and lonely individual.' (AA 2008). 'I was a father. Husband, taxpayer, homeowner. I was clubman, athlete, musician, author, editor, aircraft pilot and world traveller. I was listed in Who's Who in America as an American who, by distinguished achievement, had arrived. The other side of the coin was sinister, baffling. I was inwardly unhappy most of the time.' (AA 2008). 'I knew that if others discovered who I really was, they wouldn't like me and I would be left alone, worthless and alone.' (AA 2008). 'I spent my life 'acting as if' – either acting as if they knew (I didn't ask teachers questions in school; they might find out I didn't know the answer). or acting as if I didn't care.' (AA 2008). 'The concept of a set goal, work for that goal, achieve that goal was foreign to me. You

			either 'had it' or you didn't, and if you didn't, you couldn't let on – you might look bad.' (AA 2008). 'It did not matter to me what lengths I had to go to in order to gain love and approval from everyone. Up went the false front with more dishonesty and deceptions. I was to spend many years of my life trying to be something that I was not.' (NA 2008).
Coping	Using to cope	Using the substance of choice to escape the present painful emotional reality.	'But my real solution for my pain was food.' (OA 2014). 'I do not know when I started using food to take the edge off my emotions, but I do remember feeling weird about food at a young age.' (OA 2014). 'Taking the edge off life required more and more food, and my effort to eliminate all uncomfortable emotions blocked my ability to feel any emotions.' (OA 2014). 'They didn't understand what the food did for me: it allayed my fears and boredom, telling me everything would be okay.' (OA 2014). 'Food is my knee-jerk solution to life.' (OA 2014). 'Excess food was my ticket to oblivion, and I used it everyday' (OA 2014). 'Food was my great solace and reward, the sweetest thing in my life.' (OA 2014). 'It's also clear to me that I am wired to eat. Inhaling enormous quantities of food was the best way I could cope with the pain of living.' (OA 2014). 'I used food each day. Food was magic; it numbed me and gave me the ability to carry on.' (OA 2014). 'The food came before people, family or friends. My best illustration of this came from the night when I was bingeing and my landlady upstairs started screaming for help. I did not go to her aid at once but went to throw up first.' (OA 2014). 'I had a wife and two kids I loved, a house and a car, but food always came first.' (OA 2014). 'Before OA the food kept me numb; I felt neither pain nor the joy of life.' (OA 2014). 'Sugar gave me release from care from craving. I felt like a heroin addict must feel.' (OA 2014). 'I had become emotionally dependant on food…Food was my way of dealing with the hurt and shame I felt.' (OA 2014). 'To numb the shame, my solution had always been to binge on donuts and chocolate cake until I was sick.' (OA 2014). 'I was spiritually dead and was trying to fill a hole inside of me with food.' (OA 2014). 'And I had always numbed my feelings with food, not recognising what I was doing.' (OA 2014). 'The bottle was my friend, my companion, a portable vacation. Whenever life was too intense, alcohol would take the edge off or obliterate the problem altogether for a time.' (AA 2008, P.310). 'Outwardly I was a young woman who was comfortable with herself. Yet ever so slowly these actions that I knew deep down were wrong started eating holes in me. My first reaction was to drink.' (AA 2008). 'Alcohol helped me to hide

			my fears; the ability to converse was almost an almost miraculous gift to a shy and lonely individual.' (AA 2008). 'As a small child, I found out I could ease pain with food, and here my drug addiction began.' (NA 2008). 'As a child I lived in the world of books and fantasy in an effort to escape from emotions like fear, shame inadequacy, insecurity, inferiority, and oversensitivity.' (NA 2008). 'I first used fantasy to get out of myself.' (NA 2008). 'Pot to a small degree, freed me from my isolation, pain and loneliness.' (NA 2008). 'When I left the protection of my neighbourhood to enter secondary school I was scared. Anger became my best defence and, at the age of fourteen I found drugs.' (NA 2008).
Coping	Control	Trying to exert influence over things outside of the self that one has no real control over in order to cover inner painful issues	'I was a mass of self-will imposed on everyone.' (OA 2014). 'On allowing her weight on the scales to affect each day. 'It would be a good day if the numbers were 'right and a bad day if I didn't like them.' (OA 2014). 'I began restricting, starving, overeating, compulsively exercising, bingeing and purging up to 15 times a day, starving between those times, exercising like a maniac, hating myself, isolating, and living in terror of people.' (OA 2014). 'Anger and my critical, controlling nature were the most challenging defects for me.' (OA 2014). 'My focus on food, weight, exercise and body image kept me from looking under the surface to confront key issues that fuelled my addictive nature.' (OA 2014). 'But I held onto being thin; if I was thin, then I didn't have a problem with food. I was in control. And if I was thin, I wasn't the same me who had felt so unlikeable as a chubby kid.' (OA 2014). 'I had an addict's personality growing up, self will run riot. I always wanted my own way, and if I didn't get it I sure let someone know.' (NA 2008). 'Control was the name of the game. I tried to control everyone in our little family and outside,' (NA 2008). 'It did not matter to me what lengths I had to go to in order to gain love and approval from everyone. (NA 2008). 'I was changing jobs, changing doctors, changing drugs, trying different books, religions, hair colours. I moved from one area to another, changed friends and moved furniture. I went on vacations and also remained hidden in my home – so many things through the years' (NA 2008). 'I was angry and frightened, and I wanted you to feel as terrible as I did.'(AA 2008).
Coping	Anger	Anger used to control others	'Anger and my critical, controlling nature were the most challenging defects for me.' (OA 2014). 'I hated my body; couldn't stop eating compulsively; had no friends or boyfriend; was mean and

			nasty to my family; and was full of fear, resentment and self-pity.' (OA 2014). 'Anger became my best defence and, at the age of fourteen I found drugs.' (NA 2008).
Coping	Isolation	Keeping away from others to hide the problem.	'Compulsive overeating is a disease of isolation, and my paralysing inability to call was part of my illness' (OA 2014). 'I would take any opportunity to be alone to eat my binge foods, throw up, then eat more, only to throw up again.' (OA 2014). 'I had no tools for dealing with life. I turned inwards and became more and more isolated.' (OA 2014). 'For the longest time, I had believed I was the only person who did these things with food.' (OA 2014). 'I was isolated emotionally and socially, (OA 2014). 'I remember isolating on the playground, watching all the other children laughing and playing and smiling, and not feeling like I could relate at all. (AA 2008). 'I always wondered who I was. As a child isolated in the country, I made up stories, inventing myself along with imaginary companions to play with. (AA 2008). 'But their love for me was not a substitute for loving myself; it didn't fill the emptiness.' (AA 2008). 'Alcohol helped me to hide my fears; the ability to converse was almost an almost miraculous gift to a shy and lonely individual.' (AA 2008). 'My cure for drinking was isolation. I would get up, got to work, come home, watch TV, and go to bed. It got to the point where I couldn't remember anything good that ever happened. I couldn't imagine anything good ever happening in the future. Life had shrunk down to an endless, awful now.' (AA 2008). 'I knew that if others discovered who I really was, they wouldn't like me and I would be left alone, worthless and alone. Then I discovered alcohol.' (AA 2008). 'They might realise that they had a better time without me. And they might tell other people, who would tell other people, and I'd be alone.' (AA 2008). 'I had a sister and brother with graduate degrees who served as excellent role models, so it's difficult to explain why I was drawn to the streets. Maybe it was the loneliness and emptiness I felt as a child.' (NA 2008). 'As a child I felt isolated from my family and community and never really fit in with any particular component of society.' (NA 2008).
Perceptions of addiction		Statements about how addicts view addiction from a point of recovery, showing why they used.	'In my early years I thought I was always hungry, but my hunger was never satisfied.' (OA 2014). 'Food was my only friend and worst enemy' (OA 2014). 'Powerlessness over food gradually destroyed my home, career and ability to drive a car.' (OA 2014). 'I had drawn imaginary lines based on morality, and then continually cross them. I would say, 'I would never steal.' But I stole from broken vending machines and also from my Mum's purse. The disease was consistently

			turning me into a person I did not want to become.' (OA 2014). 'They didn't understand what the food did for me: it allayed my fears and boredom, telling me everything would be okay.' (OA 2014). 'Excess food was my ticket to oblivion, and I used it everyday' (OA 2014). 'Food was my great solace and reward, the sweetest thing in my life.' (OA 2014). 'I used food each day. Food was magic; it numbed me and gave me the ability to carry on.' (OA 2014). 'I stole food, ate burned or soiled food, and scrounged for food in rubbish bins.' (OA 2014). 'I had a wife and two kids I loved, a house and a car, but food always came first.' (OA 2014). 'Sugar and refined carbs became for me what alcohol is to an alcoholic. I was addicted body and soul.' (OA 2014). 'Before OA the food kept me numb; I felt neither pain nor the joy of life.' (OA 2014). 'Sugar gave me release from care from craving. I felt like a heroin addict must feel.' (OA 2014). 'I had become emotionally dependant on food…Food was my way of dealing with the hurt and shame I felt.' (OA 2014). 'Early on I developed a liking for favourite foods and went to increasing lengths to get them. The benign habit of chasing a pleasing taste soon became a ritual escape from my feelings and responsibilities. My normal emotional development suffered because I demanded more from food than it was ever intended to provide.' (OA 2014). 'As I got older, my addictions grew to include drugs, alcohol and sex. If something felt good, I used it until it didn't work anymore,' (OA 2014). 'I never knew which came first, the thinking or the drinking. If I could only stop thinking, I wouldn't drink.' (AA 2008). 'The bottle was my friend, my companion, a portable vacation. Whenever life was too intense, alcohol would take the edge off or obliterate the problem altogether for a time.' (AA 2008). 'It took me three months to realise that I was my problem and drinking made my problem worse.' (AA 2008).

Appendix 5, PANAS X

This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way *right now*. Use the following scale to record your answers:

1	**2**	**3**	**4**	**5**
very slightly or not at all	a little	moderately	quite a bit	extremely

1. cheerful
2. disgusted
3. attentive
4. bashful
5. sluggish
6. Darin
7. surprised
8. strong
9. scornful
10. relaxed
11. irritable
12. delighted
13. inspired
14. fearless
15. disgusted with self
16. sad
17. Calm
18. afraid
19. Tired
20. amazed
21. shaky
22. happy
23. Timid
24. alone
25. alert
26. upset
27. angry
28. bold
29. blue
30. shy
31. active
32. guilty
33. joyful
34. nervous

35. lonely
36. sleepy
37. excited
38. hostile
39. proud
40. jittery
41. lively
42. ashamed
43. at ease
44. scared
45. drowsy
46. angry at self
47. enthusiastic
48. downhearted
49. sheepish
50. distressed
51. blameworthy
52. determined
53. frightened
54. astonished
55. interested
56. loathing
57. confident
58. energetic
59. concentrating
60. dissatisfied with self

General Positive Emotion = (p31 + p25 + p3 + p52 + p47 + p37 + p13 + p55 + p39 + p8)

General Negative Emotion = (p18 + p44 + p34 + p40 + p11 + p38 + p32 + p42 + p26 + p50)

Fear = (p18 + p44 + p53 + p34 + p40 + p21)

Hostility= (p37 + p38 + p11 + p9 + p2 + p56)

Guilt= (p32 + p42 + p51 + p46 + p15 + p60)

Sadness = (p16 + p29 + p48 + p24 + p35)

Joviality = (p22 + p33 + p12 + p1 + p37 + p47 + p41 + p58)

Self-assurance = (p39 + p3 + p57 + p28 + p6 + p14)

Attentiveness = (p25 + p3 + p59 + p52)

Shyness = (p30 + p4 + p49 + p23)

Fatigue = (p36 + p19 + p5 + p45)

Serenity = (p17 + p10 + p43)

Surprise = (p20 + p7 + p54)

Basic positive affect= (joviality + self-assurance + attentiveness)

Basic negative affect= (sadness + guilt + hostility + fear)

Appendix 6, BRIEF Cope

The questions are:

1. I've been turning to work or other activities to take my mind off things.
2. I've been concentrating my efforts on doing something about the situation I'm in.
3. I've been saying to myself "this isn't real".
4. I've been using alcohol or other drugs to make myself feel better.
5. I've been getting emotional support from others.
6. I've been giving up trying to deal with it.
7. I've been taking action to try to make the situation better.
8. I've been refusing to believe that it has happened.
9. I've been saying things to let my unpleasant feelings escape.
10. I've been getting help and advice from other people.
11. I've been using alcohol or other drugs to help me get through it.
12. I've been trying to see it in a different light, to make it seem more positive.
13. I've been criticizing myself.
14. I've been trying to come up with a strategy about what to do.
15. I've been getting comfort and understanding from someone.
16. I've been giving up the attempt to cope.
17. I've been looking for something good in what is happening.
18. I've been making jokes about it.
19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
20. I've been accepting the reality of the fact that it has happened.
21. I've been expressing my negative feelings.
22. I've been trying to find comfort in my religion or spiritual beliefs.
23. I've been trying to get advice or help from other people about what to do.
24. I've been learning to live with it.
25. I've been thinking hard about what steps to take.
26. I've been blaming myself for things that happened.
27. I've been praying or meditating.
28. I've been making fun of the situation.

Brief Cope – Coping styles and their related questions:

Self-distraction 1 & 19 Active coping 2 & 7 Denial 3 & 8 Substance use 4 & 11

Use of emotional support 5 & 15 Use of instrumental support 10 & 23

Behavioural disengagement 6 & 16 Venting 9 & 21 Positive reframing 12 & 17 Planning 14 & 25

Humour 18 & 28 Acceptance 20 & 24 Religion 22 & 27 Self-blame 13 & 26

Appendix 7, WHOQOLBref

1. How would you rate your quality of life?
2. How satisfied are you with your health
3. To what extent do you feel that physical pain prevents you from doing what you need to do?
4. How much do you need any medical treatment to function in your daily life?
5. How much do you enjoy life?
6. To what extent do you feel your life to be meaningful?
7. How well are you able to concentrate?
8. How safe do you feel in your daily life?
9. How healthy is your physical environment?
10. Do you have enough energy for everyday life?
11. Are you able to accept your bodily appearance?
12. Have you enough money to meet your needs?
13. How available to you is the information that you need in your day-to-day life?
14. To what extent do you have the opportunity for leisure activities?
15. How well are you able to get around?
16. How satisfied are you with your sleep?
17. How satisfied are you with your ability to perform your daily living activities?
18. How satisfied are you with your capacity for work?
19. How satisfied are you with yourself?
20. How satisfied are you with your personal relationships?
21. How satisfied are you with your sex life?
22. How satisfied are you with the support you get from your friends?
23. How satisfied are you with the conditions of your living place?
24. How satisfied are you with your access to health services?
25. How satisfied are you with your transport?
26. How often do you have negative feelings such as blue mood, despair, anxiety, depression?

Domain	**Question numbers**
Domain 1	R3 , R4, 10, 15, 16,17,18
Domain 2	5, 6, 7, 11, 19, R26
Domain 3	20, 21, 22
Domain 4	8, 9, 12, 13, 14, 23, 24, 25

Domain	Facets incorporated within domains
1. Physical health	Activities of daily living Dependence on medicinal substances and medical aids Energy and fatigue Mobility Pain and discomfort Sleep and rest Work Capacity
2. Psychological	Bodily image and appearance Negative feelings Positive feelings Self-esteem Spirituality / Religion / Personal beliefs Thinking, learning, memory and concentration
3. Social relationships	Personal relationships Social support Sexual activity
4. Environment	Financial resources Freedom, physical safety and security Health and social care: accessibility and quality Home environment Opportunities for acquiring new information and skills Participation in and opportunities for recreation / leisure activities Physical environment (pollution / noise / traffic / climate) Transport

R – represents where scores are reversed.

The scores from the domains are divided by the number of questions, and the total for all domains are between 4 and 20. These are then converted to a score matching the Standard WHOQOL 100 using the table provided in original Introduction, administration and scoring manual provided by WHO (The WHOQOL Group 1996). This converted the data used in the bulk of the analysis.

Appendix 8, Qualtrics Questionnaire

Asking the addict – how did you feel about life and how do you feel about life now

Start of Block: 1 Invitation

Invite 1 ***Participant Information Sheet***

The title of the research project *Asking the addict – how did you feel about life then and how do you feel about life now* ***Invitation to take part*** *If you are over 18 and in recovery from any addiction, you are being asked to consider taking part in this research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask me or my supervisors, using the email addresses below, if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Please note: When raising a query your question and identity will remain anonymous. Once a query has been answered your personal details, such as your name and email address will be deleted ensuring your continued anonymity. The research is being conducted by Tessa Corner, a PhD Student, in long term recovery and working in the field of recovery from addiction.* ***What is the purpose of the project?*** *The purpose of this research is to look at how we thought and what we felt before addiction took over our lives and compare this with how we think and feel now, in recovery. This research is asking people in recovery from any addiction. The background to this project is that there is very little information from people in recovery about their experiences. The aim of this project is to change this. Hopefully this information may help others who may be in danger of becoming addicts . I expect to be collecting data for around 6 weeks before analysing it to see how we change.*

End of Block: 1 Invitation

Start of Block: 2 Why and what

Why have I been chosen? This research is open to anyone who considers themselves to be in recovery from any addiction, where recovery means abstinent from the substance or behaviour of addiction. The invitation is to complete an open access online questionnaire and I would like to include as many participants as possible.

Do I have to take part? It is up to you to decide whether or not to take part. If you do decide to take part, you can print and keep this information sheet, you will be asked to complete a participant agreement form. You can withdraw during the online questionnaire at any time and without giving a reason by exiting the webpage and no data collected from you from will be saved. Once the questionnaire has been completed and you have hit the 'submit' button your data becomes anonymous, so you cannot be identified **What would taking part involve?** The data collection should take around 20 minutes. You only need to complete it once. You will be asked to complete a questionnaire thinking about yourself at the beginning of your addiction, around 15 years old, and a questionnaire thinking about yourself now. Many of the questions are the same for both situations. You may be asked to complete the questionnaire thinking about yourself today first, or you may be asked to complete the questionnaires thinking about the beginning of your addiction first. Please do not overthink any of the questions. Please answer all the questions asked by selecting the appropriate box. The questionnaires cover how you felt then, how you used to cope in stressful situations, how you feel now and what you feel about your quality of life today. All the questionnaires are commonly used in psychology, but not in this combination with addiction. There

are no right or wrong answers. The data will be analysed to see how people used to cope with life and what their main feelings were, and what people feel their quality of life is like in recovery and how they feel today.

End of Block: 2 Why and what

Start of Block: 3 taking part

What would taking part involve? The data collection should take around 20 minutes. You only need to complete it once. You will be asked to complete a questionnaire thinking about yourself at the beginning of your addiction, around 15 years old, and a questionnaire thinking about yourself now. Many of the questions are the same for both situations. You may be asked to complete the questionnaire thinking about yourself todayfirst, or you may be asked to complete the questionnaires thinking about the beginning of your addiction first. Please do not overthink any of the questions. Please answer all the questions asked .by selecting the appropriate box The questionnaires cover how you felt then, how you used to cope in stressful situations, how you feel now and what you feel about your quality of life today. All the questionnaires are commonly used in psychology but not in this combination with addiction. There are no right or wrong answers. The data will be analysed to see how people used to cope with life and what their main feelings were, and what people feel their quality of life is like in recovery and how they feel today. **What are the advantages and possible disadvantages or risks of taking part?** Whilst there are no immediate benefits for those people participating in the project, it is hoped that this work will increase and improve knowledge about the experience of addiction and recovery. As I am asking you to think about your past there is the possibility this may cause anxiety or negative feelings. If at any time this questionnaire causes you to feel anxious or uncomfortable, please contact one of the following: Narcotics Anonymous Helpline: 0300 999 1212
Alcoholics Anonymous Helpline: 0800 9177 650
Cocaine Anonymous Helpline: 0800 612 0225
The Samaritans: 116 123

End of Block: 3 taking part

Start of Block: 4 Contact

What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives? You will be asked for age, gender, what you have been addicted to and length of time in recovery. These are being asked to see if there are any differences between age, gender, addiction type or length of clean time. The main part of the questionnaire is asking you to rate your reaction to various questions or rate various feelings by selecting the box that most closely represents your reply. If you wish, there is a box for comments at the end of this process and you can add anything you want. Please do not include any personal information such as email address or mobile number as these will automatically be taken out **How will my information be kept?** All the information we collect about you during the course of the research will be kept strictly in accordance with current UK Data Protection regulations. You will not be able to be identified in any reports or publications. The data is all anonymised, and will be kept in encrypted files with separate backup. The data will be kept for 5 years following completion of the PhD. Research publications will be available through BU's Data Repository or via the StreetScene website or FaceBook page or the Addiction Research FaceBook page once they become available, which is expected around the end of 2018. The information collected about you may be used in an anonymous form to support other research projects in the future and access to it in this form will not be restricted. It will not be possible for you to be identified from this data. Anonymised data will be added to BU's Data Repository (a central location where data is stored) and which will be publicly available. **Can I see the results?** As the data is anonymised there is no way I can forward you any findings, however any publications resulting from this research will be available through

Bournemouth University website or via the StreetScene website (www.streetscene.org.uk) or FaceBook (StreetScene and Addiction Research pages) once they become available, which is expected around the end of 2018. **Contact for further information** For further information please contact: Tessa Corner at tcorner@bournemouth.ac.uk Or supervisors: John McAlaney at jmcalaney@bournemouth.ac.ukEmily Arden-Close at eardenclose@bournemouth.ac.uk Please note: When raising a query your question and identity will remain anonymous. Once a query has been answered your personal details, such as your name and email address will be deleted ensuring your continued anonymity.
In case of complaints please contact : Professor Tiantian Zhang, Deputy Dean for Research and Professional Practice, Faculty of Science & Technology, on researchgovernance@bournemouth.ac.uk**. Finally** If you decide to take part, please feel free to keep a copy of the information sheet and participant agreement form to keep. Thank you for considering taking part in this research project.

End of Block: 4 Contact

Start of Block: 5 Consent Asking the addict – how did you feel about life and how do you feel about life now.

Participant Consent Form

Please tick the appropriate boxes

C1 I confirm that I have read and understood the Information Sheet and I agree to take part in the study (previous page)

- ○ Yes
- ○ No

C2 I confirm that I am at least 18 years old

- ○ Yes
- ○ No

C3 I confirm that I am in recovery/recovered from some form of addiction

- ○ Yes
- ○ No

C4 I confirm that I have had the opportunity to ask questions by email

- ○ Yes
- ○ No

C5 I understand that my participation is voluntary

- ○ Yes
- ○ No

C6 I understand that I am free to withdraw up to the point where the data are submitted and become anonymous, so my identity cannot be determined

- ○ Yes
- ○ No

C7 Should I not wish to answer any particular question I am free to leave it uncompleted

- ○ Yes
- ○ No

C8 I agree to take part in the project.

○ Yes

○ No

C9 Use of the information I provide beyond this project:

I agree for the anonymised data I provide to be archived at BU's Online Research Data Repository

○ Yes

○ No

C10 I understand that the anonymised data I provide may be used by the research team to support other research projects in the future, including future publications, reports or presentations

○ Yes

○ No

C11 Do you consider yourself to be in recovery from an addiction? (alcohol, drugs, gambling, food, sex, internet/social media, gaming)

○ Yes

○ No

I1 ABOUT YOU Before you begin I would like to ask you to answer a few general questions about yourself:
What is your gender?

○ Male

○ Female

I2 Click to write the question text

○ What is your age in years? _____

I3 What is your primary addiction? (please select only 1)

○ Alcohol

○ Drugs

○ Gambling

○ Food

○ Sex

○ Internet / social media

○ Gaming

I4a What is your length of recovery?

○ Years _____

○ Months _____

I5 Have you had any other addictions?

○ Yes

○ No

I6 Please indicate all relevant:

☐ Alcohol

☐ Drugs

☐ Gambling

☐ Food

☐ Sex

☐ Internet / social media

☐ Gaming

EARLY LIFE

This part of the survey consists of a number of words and phrases that describe different feelings and emotions. Read each item and then select the most appropriate answer.Please indicate to what extent you felt this way back then, at the start of your addiction around 15 years of age, what were

the feelings that using took away.

PY1 Please select 1 option for each item.

	Slightly/ not at all	A little	Moderately	Quite a bit	Extremely
Cheerful	○	○	○	○	○
Disgusted	○	○	○	○	○
Attentive	○	○	○	○	○
Bashful	○	○	○	○	○
Sluggish	○	○	○	○	○
Daring	○	○	○	○	○
Surprised	○	○	○	○	○
Strong	○	○	○	○	○
Scornful	○	○	○	○	○
Relaxed	○	○	○	○	○
Irritable	○	○	○	○	○
Delighted	○	○	○	○	○
Inspired	○	○	○	○	○
Fearless	○	○	○	○	○
Disgusted with self	○	○	○	○	○

PY2 Please select 1 option for each item.

	Very slightly / not at all	A little	Moderately	Quite a bit	Extremely
Sad	○	○	○	○	○
Calm	○	○	○	○	○
Afraid	○	○	○	○	○
Tired	○	○	○	○	○
Amazed	○	○	○	○	○
Shaky	○	○	○	○	○
Happy	○	○	○	○	○
Timid	○	○	○	○	○
Alone	○	○	○	○	○
Alert	○	○	○	○	○
Upset	○	○	○	○	○
Angry	○	○	○	○	○
Bold	○	○	○	○	○
Blue	○	○	○	○	○
Shy	○	○	○	○	○

PY3 Please select 1 option for each item.

	Very slightly / not at all	A little	Moderately	Quite a bit	Extremely
Active	○	○	○	○	○
Guilty	○	○	○	○	○
Joyful	○	○	○	○	○
Nervous	○	○	○	○	○
Lonely	○	○	○	○	○
Sleepy	○	○	○	○	○
Excited	○	○	○	○	○
Hostile	○	○	○	○	○
Proud	○	○	○	○	○
Jittery	○	○	○	○	○
Lively	○	○	○	○	○
Ashamed	○	○	○	○	○
At ease	○	○	○	○	○
Scared	○	○	○	○	○
Drowsy	○	○	○	○	○

PY4 Please select 1 option for each item.

	Very slightly / not at all	A little	Moderately	Quite a bit	Extremely
Angry at self	○	○	○	○	○
Enthusiastic	○	○	○	○	○
Downhearted	○	○	○	○	○
Sheepish	○	○	○	○	○
Distressed	○	○	○	○	○
Blameworthy	○	○	○	○	○
Determined	○	○	○	○	○
Frightened	○	○	○	○	○
Astonished	○	○	○	○	○
Interested	○	○	○	○	○
Loathing	○	○	○	○	○
Confident	○	○	○	○	○
Energetic	○	○	○	○	○
Concentrating	○	○	○	○	○
Dissatisfied with self	○	○	○	○	○

BC instruct These items deal with ways you used to cope with the stress/problems in your life at the beginning of your addiction, around 15 years of age. There are many ways to try to deal with problems. These items ask what you did to cope with the feelings or thoughts you had at the time. Obviously, different people deal with things in different ways, but I'm interested in how you tried to deal with it. Each item says something about a particular way of coping. I want to know to what extent you did what the item says, how much or how frequently. Don't answer on the basis of

whether it seemed to work or not—just whether or not you did it Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can

	I didn't do this at all	I did this a little bit	I did this a medium amount	I did this a lot
1. I turned to work or other activities to take my mind off things.	○	○	○	○
2. I concentrated my efforts on doing something about the situation I'm in.	○	○	○	○
3. I said to myself "this isn't real."	○	○	○	○
4. I used alcohol or other drugs to make myself feel better.	○	○	○	○
5. I got emotional support from others.	○	○	○	○
6. I gave up trying to deal with it.	○	○	○	○
7. I tried taking action to try to make the situation better.	○	○	○	○
8. I refused to believe that it had happened.	○	○	○	○
9. I said things to let my unpleasant feelings escape.	○	○	○	○
10. I got help and advice from other people.	○	○	○	○
11. I used alcohol or other drugs to help me get through it.	○	○	○	○
12. I tried to see it in a different light, to make it seem more positive.	○	○	○	○
13. I criticized myself.	○	○	○	○

14. I tried to come up with a strategy about what to do.	○	○	○	○
	I didn't do this at all	I did this a little bit	I did this a medium amount	I did this a lot
15. I got comfort and understanding from someone.	○	○	○	○
16. I gave up the attempt to cope.	○	○	○	○
17. I looked for something good in what is happening.	○	○	○	○
18. I made jokes about it.	○	○	○	○
19. I did something to think about it less, such as; movies, TV, daydreaming, sleeping	○	○	○	○
20. I accepted the reality of the fact.	○	○	○	○
21. I expressed my negative feelings.	○	○	○	○
22. I tried to find comfort in my religion or spiritual beliefs.	○	○	○	○
23. I tried to get advice or help from other people about what to do.	○	○	○	○
24. I learned to live with it.	○	○	○	○
25. I thought hard about what steps to take.	○	○	○	○
26. I blamed myself for things that happened.	○	○	○	○
27. I prayed or meditated.	○	○	○	○
28. I made fun of the situation.	○	○	○	○

BC2 Please select 1 answer for each question.

Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way right now / today.

PT1 Please select 1 option for each item.

	Very slightly / not at all	A little	Moderately	Quite a bit	Extremely
Cheerful	○	○	○	○	○
Disgusted	○	○	○	○	○
Attentive	○	○	○	○	○
Bashful	○	○	○	○	○
Sluggish	○	○	○	○	○
Daring	○	○	○	○	○
Surprised	○	○	○	○	○
Strong	○	○	○	○	○
Scornful	○	○	○	○	○
Relaxed	○	○	○	○	○
Irritable	○	○	○	○	○
Delighted	○	○	○	○	○
Inspired	○	○	○	○	○
Fearless	○	○	○	○	○
Disgusted with self	○	○	○	○	○

PT2 Please select 1 option for each item.

	Very slightly / not at all	A little	Moderately	Quite a bit	Extremely
Sad	○	○	○	○	○
Calm	○	○	○	○	○
Afraid	○	○	○	○	○
Tired	○	○	○	○	○
Amazed	○	○	○	○	○
Shaky	○	○	○	○	○
Happy	○	○	○	○	○
Timid	○	○	○	○	○
Alone	○	○	○	○	○
Alert	○	○	○	○	○
Upset	○	○	○	○	○
Angry	○	○	○	○	○
Bold	○	○	○	○	○
Blue	○	○	○	○	○
Shy	○	○	○	○	○

PT3 Please select 1 option for each item.

	Very slightly / not at all	A little	Moderately	Quite a bit	Extremely
Active	○	○	○	○	○
Guilty	○	○	○	○	○
Joyful	○	○	○	○	○
Nervous	○	○	○	○	○
Lonely	○	○	○	○	○
Sleepy	○	○	○	○	○
Excited	○	○	○	○	○
Hostile	○	○	○	○	○
Proud	○	○	○	○	○
Jittery	○	○	○	○	○
Lively	○	○	○	○	○
Ashamed	○	○	○	○	○
At ease	○	○	○	○	○
Scared	○	○	○	○	○
Drowsy	○	○	○	○	○

PT4 Please select 1 option for each item.

	Very slightly / not at all	A little	Moderately	Quite a bit	Extremely
Angry at self	○	○	○	○	○
Enthusiatic	○	○	○	○	○
Downhearted	○	○	○	○	○
Sheepish	○	○	○	○	○
Distressed	○	○	○	○	○
Blameworthy	○	○	○	○	○
Determined	○	○	○	○	○
Frightened	○	○	○	○	○
Astonished	○	○	○	○	○
Interested	○	○	○	○	○
Loathing	○	○	○	○	○
Confident	○	○	○	○	○
Energetic	○	○	○	○	○
Concentrating	○	○	○	○	○
Dissatisfied with self	○	○	○	○	○

QOL instruct These questions relate to how you rate your quality of life, health, or other areas of your life in the last 2 weeks. If you are unsure about which response to give to a question, please

choose the one that appears most appropriate. This can often be your first response. Please keep in mind your standards, hopes, pleasures and concerns.

QOL1 Please select one option only

	Very poor	Poor	Neither poor nor good	Good	Very good
(G1) How would you rate your quality of life?	○	○	○	○	○
(F9.1) How well are you able to get around?	○	○	○	○	○

QOL2 Please select one option only

	Not at all	A little	A moderate amount	Very much	An extreme amount
(F1.4) To what extent do you feel that physical pain prevents you from doing what you need to do?	○	○	○	○	○
(F11.3) How much do you need any medical treatment to function in your daily life?	○	○	○	○	○
(F4.1) How much do you enjoy life?	○	○	○	○	○
(F24.2) To what extent do you feel your life to be meaningful?	○	○	○	○	○

QOL3 Please select only one option

	Not at all	A little	A moderate amount	Very much	Extremely
(F5.3) How well are you able to concentrate?	○	○	○	○	○
(F16.1) How safe do you feel in your daily life?	○	○	○	○	○
(F22.1) How healthy is your physical environment?	○	○	○	○	○

QOL4 Please select only one option.

	Not at all	A little	Moderately	Mostly	Completely
(F2.1) Do you have enough energy for everyday life?	○	○	○	○	○
(F7.1) Are you able to accept your bodily appearance?	○	○	○	○	○
(F18.1) Have you enough money to meet your needs?	○	○	○	○	○
(F20.1) How available to you is the information that you need in your day-to-day life?	○	○	○	○	○
(F21.1) To what extent do you have the opportunity for leisure activities?	○	○	○	○	○

QOL5 Please select one option only

	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
(G4) How satisfied are you with your health?	○	○	○	○	○
(F3.3) How satisfied are you with your sleep?	○	○	○	○	○
(F10.3) How satisfied are you with your ability to perform your daily living activities?	○	○	○	○	○
(F12.4) How satisfied are you with your capacity for work?	○	○	○	○	○
(F6.3) How satisfied are you with yourself?	○	○	○	○	○
(F13.3) How satisfied are you with your personal relationships?	○	○	○	○	○
(F15.3) How satisfied are you with your sex life?	○	○	○	○	○
(F14.4) How satisfied are you with the support you get from your friends?	○	○	○	○	○
(F17.3) How satisfied are you with the conditions of your living place?	○	○	○	○	○
(F19.3) How satisfied are you with your access to health services?	○	○	○	○	○

(F23.3) How satisfied are you with your transport?	○	○	○	○	○

QOL6 How often do you have negative feelings such as blue mood, despair, anxiety, depression?

- ○ Never
- ○ Seldom
- ○ Quite often
- ○ Very often
- ○ Always

End of Block: In recovery

Start of Block: TXTBOX

TXT1 That is the end of the survey. Thank you so much for taking the time to complete it, your data is valuable to me and my research.

Below is a text box for you to use if you wish. Please feel free to add anything about the survey, your experience or a comment on addiction and recovery. Please DO NOT add any personal data such as name, number or email address as this data will be stripped out from your entry.

_____

End of Block: TXTBOX

Appendix 9: Participant feedback

Although it is not generally accepted practice in a qualitative analysis, below are the thoughts participants added to their questionnaire in the final field of the online questionnaire. This field was a 250 character space for participants to add their own thoughts, most did not and of those who did many were about the questionnaire, however there were a few that put into words what recovery means to them. As this research is about the feelings, thoughts and beliefs of people who have suffered from addiction it is interesting to hear the voices behind the data express what recovery means to them.

‘I wanted to die toward the end of my addiction, now I am so alive it's been the best 4 and half years of my life x’

‘Having somewhere to turn to when you are in addiction is so important and getting good support so that you can move forward, knowing that there is a light at the end of the tunnel’

‘Addiction is a world of hurt.’

‘I am aware that the time spent in active addiction has proved to be a catalyst for the cultivation of resilience.’

‘Made me think about how different and amazing my life is now. Thankyou’

‘My contentment grows every time I do some positive action based on the 12 step program I’m a very odd person and have found a way to have a good quality of life and raise a family in a long term relationship’

‘Treatment works, recovery works, Thanks :-)’

‘Enjoyed doing that. I am always aware how different I am now to how I was but it was nice to get it confirmed in the survey’

‘Good to take this survey just to see how better I cope now and contentment and gratitude’

‘generally I feel good about life, I still struggle with feelings and issues quite a lot which affect my daily life but I can deal with them much more easily now and I use the services and self-help that is available’

‘I found this survey interesting and gain some perception but also reflective on how things were in my life from active addiction to my new life in recovery.