AN INVESTIGATION OF THE QUALITATIVE DIMENSIONS OF MOTIVATION AND THE ROLE THAT THEY PLAY IN RECOVERY FROM SUBSTANCE ADDICTION

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DECLARATION

“I declare that this report contains no material which has been accepted for the award to the candidate of any other degree or diploma, except where due reference is made in the text of the thesis; to the best of the candidate’s knowledge contains no material previously published or written by another person except where due reference is made in the text of the thesis; and where the work is based on joint research or publications, discloses the relative contributions of the respective workers or authors.

“I further declare that the ethical principles and procedures specified in Faculty of Life and Social Sciences Human Research Ethics Committee document have be adhered to in the preparation of this report”

………………………………..

Matthew Berry    …/…/…….
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The experience and process of developing, researching and writing this thesis has taught me a great deal about myself and the human experience at large. The concepts and model presented in these pages are a direct result of the openness and honesty of hundreds of clients from whom I have had the privilege of being entrusted with a part of their recovery. The openness and patience of these people, struggling with such a devastating and demoralising illness, is something I am forever grateful for, for they have taught me more than any other single source.

The process of writing this thesis has been immensely challenging for me, demanding that I embrace humility and self-discipline to a greater depth than I have ever done in my life. However, I have been fortunate in that throughout this journey there have been people who have been pivotal to my arriving at the point of submission. First and foremost, there is my supervisor, Naomi Crafti. I soon learned that it wasn’t just her technical guidance that I needed, or her patience at poring through draft after draft. Rather, what was even more important was her ability to guide and gently motivate me through a project as great as this, alleviating my constant worries and reassuring me when the paralysis of self-doubt kicked in.

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AUTHOR’S NOTE

In the literature on addiction, the term ‘disease’ is not only used to describe an illness, but can in some cases, be used to describe an affiliation to a particular model (usually the medical model of addiction). It is not the purpose of this thesis to support one theory or paradigm for understanding addiction above another.

For the purposes of this thesis, the author does not propose that one model of addiction is more valid than any other, and so the term ‘disease’ is used interchangeably and synonymously with the terms ‘condition’, ‘illness’ and ‘disorder’.
The aim of this thesis was to investigate whether motivation to quit substance addicted behaviour can be assessed in terms of eight motivational dimensions identified from the psychological literature. A review of the literature of motivation in general psychology is followed by a review of contemporary approaches to understanding addiction and motivation to recover. These are drawn together to form a multidimensional model of motivation, that enables the clinician to assess a particular motivating reason on each of eight dimensions. The first study involved 54 participants who were presenting for inpatient withdrawal at a public facility in Melbourne, Australia. They were asked for the motivating reasons behind their intention to quit their substance-addicted behaviour and 200 reasons were collected. It was found that the eight dimensions were indeed independent constructs in the context of addiction recovery. In the second study 43 participants attended a one-day motivational workshop based upon this multidimensional model of motivation and significant improvements in motivation were recorded at the conclusion of the workshop. In summary this thesis provides evidence that this eight dimensional model of motivation may be of benefit to clinicians working with addicted patients, and several possible directions for future research of this model are proposed.
Chapter 1: Introduction to addiction and treatment

1.1 Overview

Addiction is one of the great social and individual tragedies of modern life, and the American Society of Addiction Medicine (ASAM) defines this illness as being “…a primary, chronic, neurobiologic disease, with genetic, psychosocial, and environmental factors influencing its development and manifestations. It is characterized by behaviors that include one or more of the following: impaired control over drug use, compulsive use, continued use despite harm, and craving.” (ASAM 2001). However, despite the frequent use and widespread interpretation of the word ‘addiction’ in both the popular and clinical vernacular, there has been little consensus as to how exactly it can or should be defined and whether non substance-related behaviours can also be addictive. This may be because, as shall be discussed later in these chapters, addiction is a highly diverse condition with a large number of predisposing factors identified throughout the literature; there are many factors that seem to perpetuate and escalate the progression of the disease; and the illness itself can manifest in a variety of ways. The Diagnostic and Statistical Manual of Mental Health Disorders 4th Edition (DSM IV) (American Psychiatric Association 1994) sidestepped the debate of how to define this condition, preferring not to include the term ‘addiction’ in its most recent volume. Instead, the authors subdivided addiction into a range of separate dependence and impulse control disorders, such as alcohol dependence disorder and so on. In order to fully understand and define addiction, it is important to understand more about the nature of this condition.

Irrespective of how one chooses to define addiction, billions of dollars are spent globally each year in both marketing and combating both legal and illegal addictive drugs. However, it is not just organised-crime cartels who are distributing
addictive drugs upon the public. Mainstream corporations also market their products that contain highly-addictive ingredients and/or additives such as alcohol, tobacco, coffee, certain pharmaceuticals (e.g., benzodiazepines) and even junk food. The consequences are not just the health and social problems associated with addiction, but also increased demands upon taxation and higher insurance and health premiums in order to offset the negative costs of this growth (Prochaska, 2004; Turning Point, 2003).

Governments worldwide invest large amounts of money in combating substance addiction, many adopting the approach that has become known as ‘harm minimisation’. Although there is much debate around what is and what is not harm minimisation, as well as debate around whether this strategy is effective or not (MacCoun, 1998; MacCoun, 1999; Rosenberg, 2003) harm minimisation has emerged as the dominant paradigm for managing this problem. This paradigm divides the strategy against addictive behaviours into three principal domains: demand reduction, supply reduction, and harm reduction (Abel, 1997).

The first area of harm minimisation, demand reduction, recognises that it is socially and economically advantageous to deter people from using potentially addictive substances in the first place, as opposed to waiting until after they have become addicted and investing funding into the costly path of treatment and recovery. Demand reduction uses public education to deter people from wanting to try drugs, as well as social programmes to target predisposing risk factors such as unemployment and lack of opportunity (Abel, 1997). Treatment itself also has a role in demand reduction.

The second area of harm minimisation is supply reduction, which is primarily the domain of government and law enforcement agencies. This approach commences
with interventions to reduce the production of drugs, be they in local illegal amphetamine ‘kitchens’ or, as in the case of cannabis, opium poppies and coca leaves overseas ‘farms’ and processing operations. Supply reduction involves customs and federal agencies in preventing drugs from entering the country, as well as the police who target the distribution and sale of illegal drugs. However, supply reduction does not limit itself to illicit drugs. In many western countries, legal drugs such as nicotine and alcohol have restrictions upon who can sell them, when they can be sold, and who may purchase them, with other potentially addictive behaviours like gambling being controlled in a similar fashion (Abel, 1997).

The third domain of harm minimisation is harm reduction, and is often misunderstood resulting in much controversy. Addiction is highly complex, and for a variety of reasons, many people with this disease often do not or cannot access treatment. For those who do seek help, recovery is something that takes time and frequently results in a relapse into the addicted behaviour. Therefore, under the paradigm of harm minimisation, the primary purpose of intervening during periods of active addicted substance-using is to reduce harm that may arise for both the user and the community at large. Needle and Syringe Programmes are one such approach, being well-researched and a highly efficacious approach to preventing the transmission of the HIV virus through the intravenous drug injecting community. However, it is often not recognised that abstinence-based treatment also belongs under the category of harm reduction and there are now a wide range of therapies and modalities available in the public and private sectors, as well as self-help groups (Abel, 1997).

Despite the millions of research and treatment dollars being spent (Turning Point, 2003), there are several major problems facing the field of drug treatment, and this thesis explores one of the possible underlying reasons behind these problems:
motivation. One problem facing treatment services is that the majority of substance abusers are highly reluctant to engage with treatment in the first place (Hser, Maglione, Polinsky & Anglin 1998). However, it does not necessarily mean that these individuals cannot recover without the help of formal treatment service, as most people who successfully change their addicted behaviours do so without any formal assistance or treatment (Miller & Rollnick, 2002). Nonetheless, the more people that can be engaged in treatment, the better.

A second problem facing services treating addicted substance-users is that of retention. Of those clients and patients who do commence a formal treatment programme, few actually see it through to the end. Drug and alcohol residential withdrawal units (detoxes), such as the centre used for one of the studies conducted as a part of this thesis, report surprisingly low completion rates (76% in the case of the study described later in this thesis), even though many are brief, six-day residential programmes. In longer term treatment populations, an average of about one third, and as high as 52-75% of people who start an outpatient chemical dependency program, will not complete the programme (Gaskin & Little, 1992), let alone maintain long-term sobriety post-discharge.

A third problem facing addiction treatment is one of relapse. In 1 to 3 year follow-up periods, between 50 and 93% will return to their addiction (Foote, 1999) with Brownell, Marlatt, Lichtenstein, and Wilson (1986) reporting a similar range of 50-90%. This is clearly a significant concern for government and health companies funding such treatment, as well as for the addicted individual.

The issue of how effective is treatment for substance addiction has been, and continues to be, hotly debated. Both the literature and anecdotal evidence point to high rates of relapse. The Drug and Alcohol Treatment Outcome Survey (DATOS) enrolled
over 10,000 participants in an attempt to establish which are the more effective approaches to treatment. However, because they only limited their follow-up to those participants who had remained in treatment for 1 to 3 months, the study was more about comparing treatment modalities rather than the overall efficacy of treatment for people with addictions. Furthermore, the sample was taken from those already in treatment, a group not necessarily truly representative of the drug-using community at large (Flynn, Craddock, Hubbard, Anderson, & Etheridge, 1997).

The role of motivation in treating substance addiction, whilst being only one of many factors affecting outcomes, is arguably a central and critical issue (Miller & Rollnick, 2002), and it may play a significant role in each of the above three issues facing treatment. In the case of the first problem highlighted above, that of engaging sufferers in treatment services, could it be a lack of motivation to change that is, in part at least, stopping people from engaging treatment services? In the second problem, that of retention in the treatment programme, are people losing motivation to commit to the full course of their treatment? And in the final problem, reflected by the high rate of relapse after finishing the programme, do individuals lose their motivation to maintain their substance-free behaviour?

Investigation of these three issues, that is the role that motivation plays in overcoming a drug or alcohol addiction and going on to successfully maintaining their treatment goals, was the aim of this thesis. This first chapter explores the current best practice around the role of motivation in addiction recovery. Chapter Two provides an overview of how motivation is conceptualised in the broader psychological literature starting with the older foundations of motivational theory. This chapter then goes on to explore the range of different ways that motivation can be defined, and how it is perceived to influence human behaviour. The third chapter draws this information
together into a possible multi-dimensional model of motivation that can be applied to
the understanding and treatment of addiction.

Chapters Four and Five provide the methodology, results and discussion of two
studies that were undertaken to explore the multidimensional model of motivation
hypothesised in Chapter Three, with a final chapter providing discussion about what
future research is needed, as well as if and how these findings can be used to enhance
addiction treatment outcomes.

1.2 Understanding Addiction

It is important to attempt to define the term ‘addiction’ as it is used in the
context of this thesis from the outset. However, in order to do so, it is necessary to
understand what this condition entails. Models and theories that focus upon this
question tend to address it from one of two different perspectives. On the one hand,
there are those who place emphasis upon the aetiology of this illness, prompting
questions such as: what factors predispose an individual to developing an addiction?
What creates an addiction? And what are the mechanisms behind the development of
an addiction?

On the other hand there are the issues and questions arising from the
observation of the symptomatic progression of the disease of addiction and how it
changes over time, as well as the process and stages involved in an attempt to change
an addicted behaviour. Some such questions include “is it progressive?” and “what
pattern of use could constitute addictive behaviour”. These shall be discussed later in
this chapter.

1.2.1 Addiction as a syndrome

A challenge to answering the above questions lies in the fact that there are both
commonalities and differences between the various types of addictive disorders, such
as drug addiction, certain eating disorders, sexual addictions and so forth (Brownell, Marlatt, Lichtenstein & Wilson, 1986). For example, substance addictions (which are the focus of this thesis) consist of an often harmful and destructive behaviour characterised by dependence upon a substance that is both exogenous to the body, and non-essential, whereas in food addictions, there may be an obsession to consume certain food types such as sugar or salt above the essential amount required for healthy metabolic functioning. Sexual addiction involves a compulsion to perform a natural behaviour to excess, whereas in the case of gambling addiction, the behaviour may or may not be a natural part of a human’s genetic makeup.

There are also considerable differences exhibited between individuals suffering from addiction to the same substance or behaviour. For example, for some alcoholics, drinking is characterised by bouts of extreme drinking followed by periods of abstinence, whereas other alcoholics may drink continually with fewer and briefer periods of abstinence and lower overall levels of intoxication. This suggests that rather than a single cause, there may instead be a range of potential aetiological and mechanistic factors involved in addiction. Although family history and genetics have been found to play a role in this disorder (Choi et al., 2006; Fehr et al., 2006), these factors are far from being definitive and absolute. Not everyone from a family where alcoholism is prevalent will go on to develop alcoholism. This suggests there may be other factors that influence the genesis of an addiction, including personality characteristics such as impulsivity or emotional dysregulation, sociocultural influences, past reinforcement from drinking, and conditioned reaction to alcohol (Cox & Klinger, 1988).

Differences between individual manifestations of addiction occur not just in its aetiology. Rather, an addiction can manifest in markedly different ways from person to
person, and moreover, it can change how it manifests in a particular individual at different times during their life. Amongst the people with addictions who participated in the studies conducted as a part of this thesis, there were some who reported that they drank constantly throughout the day whilst remaining able to function, others who followed an episodic binge pattern until they would pass out from intoxication, and still others who, on an almost daily basis, binged until they passed out. For some, it was more situationally-determined, in response to emotional discomfort such as stress or social situations, whereas for others it was constant with the participant reporting that situational factors had a reduced influence. Therefore it seems likely that addiction has a range of causes and presentations.

The participants in these studies also reported many different negative consequences resulting from their addicted substance use. For example, for those who were able to maintain employment, their addiction had considerably fewer negative outcomes, especially in terms of criminal behaviour, than there were for those whose disorder was so severe that they were no longer able to work and were reliant upon crime to sustain their addiction.

Therefore, rather than addiction being conceptualised as a singular construct, it may be more appropriately described as a syndrome. This is because there are a considerable variety of addictions, some based upon substance use, where as others are solely behavioural such as gambling or compulsive shopping. Furthermore, there are a wide range of causes and predisposing factors for addiction, such as family modelling (Halebsky, 1987), self-medicating (Brower, Aldrich, & Robinson, 2001) and physiological dependence (Jellineck, 1960). The addicted behaviour expresses itself in a multitude of ways, for example as a daily behaviour or situationally determined (Jellineck, 1960) with a wide range of trigger factors (Marlatt, 1985a); and it can have
far reaching and diverse consequences, including both health and social functioning. This difference in the way that addiction expresses itself is illustrated by the DSM-IV’s criteria for substance-dependence requiring only three of seven criteria needing to be present for a diagnosis to be provided (DSM-IV, 1994).

1.2.2 Defining Addiction

As a consequence of the syndromic nature of addiction, it is not possible to provide a satisfactory and comprehensive definition of addiction that encompasses all of these different behaviours. Defining addiction becomes even more challenging when trying to present this understanding in a way that meets the needs of increasingly multi-disciplinary treatment services, with their medical, psychology, social-work, and other allied health staff sharing responsibility for the welfare and treatment of clients. This is complicated all the more given each discipline’s understandably different priorities when it comes to how they conceptualise this illness and the person suffering from it.

For example, social workers may attend primarily to the social consequences of the addiction, such as family problems and counselling, homelessness and financial concerns, and so for a definition to be functional it would include, amongst other aspects, the social, familial and economic harms attributed to this disorder (Fiorentine, 1998). Likewise, other specialist clinicians will be concerned with their area of expertise and conceptualise addiction accordingly: forensic psychologists may be concerned with the criminal behaviour that often results from addictions; politicians may need to focus upon the balance between the costs (both financial and social) of addiction, and public opinion about policies. Counselling and clinical psychologists may focus more upon the developmental, behavioural and cognitive problems that contribute to and result from addiction, such as the role of learning (Marlatt & Gordon,
1985) or attachment (Orford, 1985); neuropsychologists concentrate on the harm that
drug use has upon the brain, such as Alcohol-Related Brain Injury, or upon the areas
of the brain associated with addiction (Ruden & Byalick, 1997), along with the
interactions between each class of drug, and the brain’s neurotransmitters (Koob,
1999); and medical practitioners may place their emphasis upon the role of
physiological dependence and the associated withdrawal syndrome (Jellineck, 1960).

More recent models for understanding addiction have become so complex that
they are little known outside of the academic and research circles within which they
evolved. These models require an increasingly specialised level of biological,
neuropsychological, or psychological knowledge that may be beyond the scope of
many clinicians working in drug and alcohol services, and as a result, these models
unfortunately have limited or no current practical utility in clinical settings.

Nonetheless, each of these approaches and theories does possess merit,
explaining different aspects of addiction, and they can be grouped into five broad
approaches to understanding addiction. These are the moral, biological, psychological,
social and holistic approaches and a brief overview of each is provided below, along
with a summary of how each approach defines and tackles the issue of motivation to
change.

The moral model of addiction is probably the oldest and possibly the most
widely held view in the community, regularly being espoused in the media and by
some community leaders (Morse, 2004). It assumes that addiction is a matter of
choice, and therefore is no different from any other problematic or antisocial
behaviour. Those individuals who fail to change are, according to this model, lacking
in 'moral fibre', willpower, self-respect and regard for others and therefore punishment
is the response of choice. However, punishment has long been known to be ineffective
at addressing the problem of addiction. Recent research shows that illicit drugs are a feature of the lifestyle and criminal behaviour of more than 50% of the prison populations of both New South Wales and Victoria, with the proportion increasing amongst those serving with one or more previous incarcerations. This figure does not include those incarcerated for alcohol-related offences so it is probably an underestimate (Australian Bureau of Criminal Intelligence, 2000).

During the 20th century it was recognised by the medical community that addiction could not be simply a matter of free will and choice (Jellineck, 1960). People continue to perform these harmful behaviours despite overwhelming reasons to change, and furthermore there are severe and often life threatening consequences to the cessation of many addictive drugs. For example, in the case of alcoholism, non-medically supervised withdrawal can result in seizures, delirium tremens and death. These factors resulted in the exploration of the apparently biological processes underlying addiction.

The disease model of addiction was first popularised by the 12-step fellowship of Alcoholics Anonymous (AA), resulting from the work of, amongst others, the Dr William Silkworth. Through a career characterised by a particular interest in alcoholism, Dr Silkworth proposed that alcoholism was a disease caused in part by a manifestation of an allergy to alcohol, resulting in the person metabolising the drug in a different manner to their non-alcoholic peers (Cooper, 2003). Because of the limited ability of medical science at that time, Dr Silkworth’s theory was based primarily upon observed behaviour, however it has sufficient face and clinical validity that it has been adopted by and accepted by the millions of members of Alcoholics Anonymous. However, despite this, Dr Silkworth and AA’s view that alcoholism was a disease remained on the fringe of the medical profession until 1960 when E. M. Jellinek
published ‘The Disease Concept of Alcoholism’. Jellinek proposed a typology of problematic drinking behaviour, which he designated ‘alpha’ through to ‘epsilon’, outlined in Table 1 below.

Table 1  Jellinek’s (1960) Classification of types of Alcohol Abuse.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha</td>
<td>Psychological dependency, either specific and contextual, or global. It is not progressive but does have negative consequences</td>
</tr>
<tr>
<td>Beta</td>
<td>Not addicted, however continues to drink despite medical consequences such as liver damage</td>
</tr>
<tr>
<td>Gamma</td>
<td>True disease: progressive, constant drinking, uncontrolled and drinks to excess. Physically dependent</td>
</tr>
<tr>
<td>Delta</td>
<td>Socially condoned excessive drinking. Physical dependence, but within culturally acceptable norms.</td>
</tr>
<tr>
<td>Epsilon</td>
<td>Binge drinking interspersed with periods of abstinence or controlled drinking.</td>
</tr>
</tbody>
</table>

However, only one of above five types, the gamma drinker, was described by Jellinek as suffering, in his opinion, from a true medical condition. Therefore, rather than being punished, Jellinek propounded the belief that the sufferer should be treated as they would for any other disease. Jellinek’s (1960) definition of a gamma drinker and rationale for his conclusion that it was a medical condition was based upon the recognition that the symptoms of alcoholism shared the classical features of a disease, being:

- a progressive condition with cycles and relapses
- most people are susceptible to it, albeit to varying degrees based upon genetic, psychological and sociological factors
- changes in biochemical functioning make behaviour change harder and harder;
• that the concepts of tolerance, physiological dependence, and withdrawal are central to the understanding of addiction
• the condition is irreversible, so that a return to controlled drinking is not possible
• it is a primary condition in its own right rather than being symptomatic of some other (usually psychological) condition
• this condition, like other diseases, follows a relatively predictable and reliable course (Jellineck, 1960).

However, Jellinek’s classification and definition was a double-edged sword for the cause of understanding and treating addiction as an illness as opposed to a moral weakness. This is because his criterion included and required the presence of physiological dependence and withdrawal. This theory did not recognise that many alcoholics, such as episodic binge drinkers, do not exhibit physiological dependence and tolerance to this drug, but nonetheless have the inability to control their consumption of alcohol and suffer the health and social consequences of their illness. Furthermore, even once the physiological dependence has been treated by withdrawal (detox), the person will usually still have difficulty resisting the urge to consume the drug, even though they can be fully aware of the negative consequences of such acts (and the lack of positive consequences too). Moreover, Jellinek’s (1960) definition also excluded those addictions which were solely behavioural, such as gambling, from being classified as a true disease or disorder.

Research has continued into the biological causes of addiction with growing recognition of the changes that occur on a physiological level to the brain of an addicted individual (Ruben & Byalick, 1997) that remain after the person has been withdrawn from the drug. These include not only the direct consequences to the brain of the abused substance itself, as in Alcohol Related Brain Injury, but also in terms of
the neurophysiology of the brain’s reward pathways, changes in the number of dopamine and serotonin receptors, and the craving mechanism (Ruben & Byalick, 1997), one of the core features of all addictions.

Probably the greatest positive legacy of Jellinek’s work was that it stimulated research into addiction. Many diseases have their roots in the sufferer’s genetic makeup and it was posited for some time that addiction could also have a genetic cause. However current research, including that carried out amongst cohorts of monozygotic and dizygotic twins, seems to point to both an environmental and genetic aspect to addiction (Hesselbrock, Hesselbrock & Epstein, 1999). Although research suggests that there does seem to be some form of genetic predisposition in particular to alcohol and tobacco addiction upon which most of the research has been conducted (Hesselbrock et al., 1999), this genetic predisposition alone does not predict with certainty whether an individual will develop an addiction. Likewise the reverse is also true: that substance-dependent persons do not always have biological relatives who also have this disease.

There are several problems facing solely biological approaches to explaining addiction. The first is that solely behavioural addictions such as gambling follow a similar progression to substance addictions. This suggests that the notion of physiological dependence, tolerance and withdrawal may not be an essential underlying factor inevitably establishing an addiction. This was established in a review by Fishbain (2003) who showed that amongst chronic pain sufferers, there was a difference between those who were addicted, (having cravings for the drug), and those who are physically dependent. Fishbain estimates that 3% to 19% of chronic pain sufferers treated with opioids were deemed addicted to these medications and a NIDA
(1999) report cited a study that confirmed this finding that a person could be physiologically dependent upon a drug but not addicted, saying:

Only four out of more than 12,000 clients who were given opioids for acute pain actually became addicted to the drugs. Even long-term therapy has limited potential for addiction. In a study of 38 chronic pain patients, most of whom received opioids for 4 to 7 years, only 2 patients actually became addicted, and both had a history of drug abuse. (p95)

The concerns with primarily biological approaches to understanding addiction are further highlighted in that, even after the physiological dependence has been treated with the client by being fully withdrawn from their drug, the behavioural component often remains with strong cravings often resulting in relapse (Marlatt, 1985a).

Psychological models of addiction emerged alongside biological approaches, with contemporary models focusing upon a variety of learned behavioural and cognitive factors. These factors include: positive expectancies of substance use (Cooper, Frone, Russel & Mudar, 1995); antecedent and consequent events that initiate and maintain the behaviour (Marlatt, 1985a); irrational and maladaptive beliefs about addiction (Marlatt, 1985a); childhood experiences of parents modelling maladaptive behaviours (Bandura, 1976); inefficient coping strategies and deficient in general life skills (Cooper et al., 1995); low self-efficacy (Marlatt, 1985a); maladaptive personality factors (Ruiz, Pincus & Dickinson, 2003); and motivational factors (Marlatt, 1985a; Cooper et al., 1995).

Many studies have shown that expectations often play as powerful a role in motivating drug-seeking behaviour as the physiological need for the drug. These expectations tend to cluster around conceptually distinct and meaningful factors, such
as alteration to mood, reduction of anxiety, and increase in confidence or sexual performance (Jaffe, 1991).

It is easy to see how, by means of a processes of modelling coupled with both classical and operant conditioning, drug-seeking behaviours could be rapidly reinforced. It is not uncommon for an alcoholic in treatment to report that they no longer experience any positive affective outcome as a result of alcohol consumption. Yet this does not necessarily result in a change in behaviour as would be predicted by pure behavioural theory (Skinner, 1953). Clients may report that they are highly distressed by their addicted behaviour because it continues despite their often very powerful and urgent need to change. This could suggest that addicted behaviour is something that does not seem to fall under the domain of purely rational executive control, and would imply that there may be other influential factors. It is not uncommon for clients of treatment services to report dozens of prior attempts to change their behaviour, some assisted, but most being on their own, and these have all resulted in relapse. The impact of this pattern of relapsing can be a decrease in one’s sense of self-efficacy, which may initially be restricted to the addictive behaviour. However, as the person searches for other reasons to explain their failure, these failures may go onto negatively influence other aspects of the personality, self-efficacy, and self-esteem, thus strengthening their reliance upon the addicted behaviour to manage their increasing unpleasant inner world.

The late 20th century saw the evolution of holistic approaches to understanding addiction. It had been identified over the previous decades that there were biological, psychological and social elements that played significant roles in addicted behaviour, and so Miller and Hester (1995) proposed one of the first models to embrace the
notion of the multi-generic nature of addiction, recognising that there is no single pathway that can be described as the sole aetiology of addiction.

In what Miller and Hester called the Public Health Model (1995), they suggest that in addiction there are three domains that play a role. The first of these domains is the agent, which in the disease of addiction as described in the biological model, is the drug. By their very nature, drugs are a potential health problem because they produce effects that are often perceived by the user as being beneficial and highly desirable, but can lead to dependance through, for example, tolerance and the subsequent withdrawal syndrome (Miller & Hester, 1995). Furthermore, different drugs result in different types of individual and social problems.

Miller and Hester’s (1995) second domain is the individual who carries out the behaviour. The individual not only has genetic factors that influence their susceptibility to developing an addiction, but their cognitive processes adapt as they become addicted to the substance. Based upon past experiences, the drug may become more or less subjectively desirable. For example, a person who grew up learning how to manage their emotions, with good inter-personal and intra-personal skills, and who has good self-esteem, may find the effects of a drug considerably less desirable than a person from a broken home with psychiatric or personality issues, and who is lacking in many of the interpersonal and intrapersonal skills needed to be a happy and contented adult, and taken for granted by the community at large (Miller & Hester, 1995).

The third domain of Miller and Hester’s (1995) model is the individual’s environment. This includes their home, social networks, opportunities for alternative drug-free lifestyle, and availability of adequate and appropriate treatment. They suggest that there may be a higher chance of relapse if the addicted client is discharged
from inpatient care back to an area where there are few opportunities for employment, especially when their prior sole means of income/life purpose/kudos was drug trafficking (Miller & Hester, 1995).

One of the strengths of the Public Health Model is that it provides a flexible framework to more readily address the needs of the client. For some clients, the social problems are their primary concern. For others, the physiological component of their addiction may be secondary to the fact that it brings them relief from co-morbid psychotic symptomatology (Miller & Hester, 1995).

Looking back over this whole chapter, the evidence seems to suggest that the successful treatment of addiction may not belong to any one discipline, rather a collaborative and holistic approach is the preferred course of action. Such an approach would need to incorporate the biological, psychological and social factors in recognition of the individual’s unique presentation of the syndrome of addiction.

1.3 Initiating change

One of the ways that addicted behaviours can be distinguished from other behaviours is by their resilience to change (Ball, Carroll, Canning-Ball, & Rounsaville, 2005). Addicted behaviours can persist even when the reasons to stop seem to be overwhelming and change is the only rational response. This would suggest that the relative significance of the role that motivational factors play in changing addicted behaviours may be quite different from their role in changing non-addicted behaviours and habits.

Over the last three decades there has been an increasing emphasis on the role of motivation in the treatment of addiction (e.g., Miller, 1995), along with the belief that enhancing motivation is an essential part of the treatment of addiction rather than being something that the client is expected to come up with on his or her own
(Kertesz, 2006). Hartnoll (1992) proposed that motivation to seek help with an addiction is a function of the severity of an individual's problematic drug use. Help-seeking behaviour is influenced by individual characteristics, environmental circumstances, and sociocultural context; that the availability, accessibility, and characteristics of services and policies are in part responsible for determining patterns of help-seeking (Hartnoll, 1992).

However, although treatment has been shown to be effective, research shows that, despite the ever increasing negative consequences of continued substance use, the majority of substance abusers do not enter treatment and even fewer complete their treatment (Hser et al., 1998). Furthermore relapse rates in addiction recovery are notoriously high. Much of research into why relapse rates are so high has been focused upon those clients currently in treatment, with little attention being given to those who are not yet seeking treatment possibly due to the difficulty in accessing these individuals (Hser et al., 1998).

Hser et al. (1998) did find that only 62% of those seeking treatment actually followed up on the referral that they were given within the six-month timeframe of the study. Contrary to their hypothesis and the proposals set out above by Hartnoll (1992), they found that severity of drug and alcohol abuse was in fact inversely proportionate to the likelihood that they would enter treatment. This finding was supported in another study conducted by Franken (1999) who found that approximately half of the participants successfully completed a detox program, however the severity of drug habit and other medical complications were inversely predictive of positive outcome (i.e., completion of program). Interestingly enough, this study did not find that motivational factors predicted outcome, however the assessment tool employed did not measure qualitative factors in terms of the participants’ perception of their
motivating reasons. Furthermore, by being present in the detox, the participants already had a degree of motivation.

Miller and Rollnick (2002) also looked at what motivates an individual to access help, and proposed that humans have an innate desire for order and to set things right, suggesting furthermore that the strength of this instinct may vary from person to person. This desire can be triggered by ambivalence (the swinging between a desire for change and a desire to maintain the substance-using behaviour), both internally (the person wanting to resolve their ambivalence) and externally (wanting to fix another person’s ambivalence).

However, an earlier study by Inciardi (1988) casts caution upon the popular notion that external sources, such as legal coercion, are an appropriate way of getting drug-users to enter treatment, suggesting that the data behind such claims is dubious at best. He goes on to say that the 1956 New York State "Special Narcotics Project" is often advanced as proof for the effectiveness of compulsory treatment, however the conclusions derived from the project were far from being either valid or reliable. Hser et al. (1998) did find that clients receiving legal coercive pressures were more likely to enter treatment, and without the presence of these pressures, they found that drug users’ motivation to change was quite unstable. However, this external motivator was just one factor, with other factors including the drug user having experienced prior ‘successful’ treatment.

Battjes et al. (1999) reported on a forum that had been set up to look at what does, and what does not, help people get into treatment (National Institute of Drug Abuse, December, 1996). An example of the subtle nuances of motivation came from one of the panellists Paul Amrheim, a psycholinguist, who proposed that it is possible to gauge a client's motivational commitment by analysis of the verbs they use in
relation to commitment. He proposed that the speaker's choice of verb reflects (a) the speaker's desire to do the act, and (b) the speaker's belief that he or she is able to do the act, with weighting approximately three times more on (b) than (a). This relates back to the differing efficacy of ‘need to change’ versus perceived ‘ability to change’. However, whereas this could possibly help a clinician gauge a person’s readiness and willingness to change, it did not help in generating initial motivation to change.

William Miller, a delegate at that same forum (1999), acknowledged that focus should be on the person's subjectively perceived ability to change as a key factor, rather than their desire. However he also pointed out that motivational levels varied from one drug to another, when it came to polysubstance abusers. This, he cautioned, could be one of the problems with treatment models based upon total abstinence.

Carlo DiClemente was also present at the NIDA forum, and suggested some factors referring back to his and James Prochaska’s Transtheoretical Stages of Change Model (Prochaska & DiClemente, 1986). DiClemente pointed out that in addition to the stages represented in their model, different factors may influence motivation to proceed at each stage in the model. So the reasons behind a person’s motivation to enter treatment may not be sufficient to motivate them to change their drug-using behaviour, and again, there could be different types of reasons necessary to motivate them to maintain their new behaviour.

Jalie Tucker, also a delegate at the forum (1999), looked at those factors that influence help-seeking, as opposed to those that influence recovery. Although various authors have recognised that approach type and avoidance-orientated motivators could generate motivation to change (Laudet, Savage & Mahmood, 2002), Tucker proposed that psychosocial problems (avoidant motivators, i.e., negative consequences of substance abuse) were more effective motivators for initiating help-seeking, as
opposed to quantity of substances used, duration of abuse, or accessibility or cost of treatment. Tucker proposed that environmental contexts surrounding recovery were a strong predictor of recovery, more so that treatment effects. She further proposed that perception of treatment effectiveness is important; treatment should focus more on the psychosocial problems of the individual, rather than just on reducing drug use; programs should focus upon the context of drug use, including available alternative activities; and finally, that the emphasis upon abstinence should be decreased while the individual was able to confidently access non drug-using alternative activities.

Battjes et al. (1999) in their summary of the NIDA forum proposed that while the major goal of drug treatment services in the U.S. is to enable drug users to make permanent and profound changes in their lifestyles, ethnographic investigations suggest that drug users’ motivations for entering treatment are varied and often differ substantially from program goals, such as wanting to impress an upcoming court hearing, wanting to lower their tolerance, or as simple as wanting food and shelter, or a respite from the drug use.

This is quite a significant criticism against taking Prochaska and DiClemente's Stages of Change model (1986) literally. The individual's placement in the cycle, based upon their behaviour and self-report, is not necessarily congruent with their placement based upon their psychological state. Indeed can it be argued that there are difficulties in accurately or validly placing anyone at any stage on the stages of change cycle, not just because of this incongruence, but also because their placement could vary from substance to substance.

Battjes et al. (1999) also proposed that there were other themes that were of concern to individuals seeking treatment. The rules and controls exerted by staff were a major cause for concern by the participants, along with difficult, complicated and
inflexible admissions procedures. There was also a view that only those who had experienced addiction could possibly help them, and further concerns about confrontational techniques.

So in summary, the literature recognises that both the need to change and the perceived ability to change are necessary in help-seeking for an addiction. Factors that influence this need to change include coercive external pressures such as court orders, as well as internal pressures such as needing respite, shelter and food. However the research does not seem to explore the different effectiveness of such avoidant motivators, those reasons that motivate because they cause the person distress, as opposed to approach (constructive) motivators, being reasons that motivate because of a perceived desirable positive outcome.

1.4 Stages of Change

In 1986, Prochaska and DiClemente suggested a new approach to modelling addiction, which they entitled the ‘Transtheoretical Stage of Change’, arguing that people in recovery go through a series of discrete motivational stages. These researchers were among the first to recognise that, in much the same way as a child growing into an adult must go through a range of different stages, so too does a person in their journey to change an addicted behaviour. Prochaska and DiClemente defined the various stages of change and discuss the ways to assess what stage a person is located, as well as what are the recommended interventions for that stage (Prochaska & DiClemente 1986). They did not concern themselves with modelling the processes underlying addiction; rather they suggested that the priority was to recognise that a person’s progress through treatment is a cycle of stages and to tailor interventions accordingly. Their model was based upon research of smokers’ attempts to quit, and although there has been much criticism of the model's usefulness and validity across
other addictive behaviours, there is little doubt that it did encourage clinicians to recognise that addiction and sobriety are not two discrete and exclusive states. Instead, in the journey to recovery, an individual passes through a range of different motivational states, with the needs of the addicted person varying according to the stage of change they are located at in the cycle (Prochaska & DiClemente 1986).

The first stage Prochaska and DiClemente (1986) propose is that of the precontemplator. In this stage the person sees no potential harm in their behaviour, or at the very least, does not display any intention of changing it. The second stage is called the contemplator stage, when the person is becoming aware that their behaviour is causing them problems, ambivalence is increasing, and as a result, they are beginning to question whether they should consider changing (Prochaska & DiClemente, 1986). In the third stage, preparation, the person is actively taking the necessary steps to be able to change their behaviour, and this is followed by the fourth stage, action, where they actually embark upon the new behaviour. The final stage is maintenance, which is the process of maintaining the new drug-free behaviour, and takes into account learning from the lapses and relapses that usually occur (Prochaska & DiClemente, 1986).

Prochaska and DiClemente regard one of the key roles of their model as being a tool for guiding clinicians to choose where to focus their interventions with a client. They suggest that one of the key goals for a clinician is to assist the client to motivate themselves around the cycle, Motivational Interviewing having a clear role in this (Miller & Rollnick, 1991).

However, there are several criticisms of the Stages of Change model. One criticism, particularly relevant when working with illicit drug users, is that the individual's apparent motivation can move from one stage to another and back again.
all within the space of a few hours. Another is the difficulty that can be had in allocating an individual to a particular stage, not just from the point of the aforementioned fluidity of motivation, but also because poly-drug users may be at different stages for different substances.

However, the Stages of Change seem to be a well-validated way of modelling the process of the recovery from addiction, and they have been widely adopted (Prochaska, 2004). Building from this framework leaves the question of what motivates the individual to go from the early stages of change into taking action about their substance use?

### 1.5 Motivational Interviewing

The emphasis on the role of motivation in recovery from addiction led Miller and Rollnick (1991) to develop Motivational Interviewing (M.I.), a highly structured cognitive-based intervention that takes a client through five discrete stages, being:

1. Establish rapport
2. Explore positive and negative aspects of drug use
3. Address ambivalence and motivation
4. Recognise and respond to resistance
5. Summarise and identify next steps.

Prior to this technique being developed, much of the focus in drug and alcohol counselling was confrontation of the client by the therapist, so that they 'wake up and stop hiding' from their problems (Major, 1996). An increasing body of evidence accumulated by Miller (1991) and others found that the therapist's confrontation style was actually quite counterproductive. Furthermore, there is much clinical anecdotal experience about the paradoxical nature of addiction, whereby this behaviour persists despite seemingly overwhelming reasons to change. As Miller and Rollnick put it:
“people with alcohol and drug problems can … persist in their habits, despite incredible personal suffering and losses (and) sometimes such consequences only seem to strengthen and entrench a behavior pattern” (Miller & Rollnick, 2002, p34).

It is clear that in the disorder of addiction the need to avoid the negative consequences of the behaviour is not sufficient to result in motivation to change. This understanding resulted in the development of one of the techniques most regularly employed in addressing motivation in addiction treatment, Miller and Rollnick's (1991) Motivational Interviewing (M.I.), a directive but still a client-centred technique for enhancing intrinsic motivation to change.

Miller and Rollnick (1991) did not concern themselves with the aetiology and mechanics of addiction, rather their M.I. explores ways of increasing the individual's motivation to achieve their desired treatment outcome. One of the core tenets is that the therapist's role is to enable the client to confront themselves, rather than the therapist confronting them directly.

Miller and Rollnick (2002) discuss the underlying processes of change, suggesting:

“…that humiliation, shame, guilt and angst are not the primary engines of change. Ironically, such experiences can even immobilize the person, rendering change more remote. Instead, constructive behavior change seems to arise when the person connects it with something of intrinsic value, something important, something cherished ... People often get stuck, not because they fail to appreciate the down side of their situation, but because they feel at least two ways about it.” (p.26)

Miller and Rollnick (2002) place the notion of ambivalence right at the centre of their approach, defining it as a state of being in at least two minds about something,
each incompatible with the other. It is the resolution of this ambivalence that can free
the person to make a change to their behaviour. The role of M.I. is to help a person
with an addiction shift from this ambivalence to a definitive commitment to change
(Miller & Rollnick, 2002).

Miller and Rollnick (2002) describe ambivalence as being a decisional balance,
with the arguments in favour of continue drinking/using on one side, and the reasons
in favour of quitting drinking/using on the other. In the ambivalent individual, this see-
saw is either balanced, or, more usually, rocking back and forth from one motivational
direction to the other. Miller and Rollnick further break the two sides down into
avoidance and approach type reasons. On the keep drinking/using side are the costs of
change (avoidance) and benefits of the keeping drinking (approach), and on the quit
side of the see-saw are costs of the continued drinking/using (avoidance) and benefits
of change (approach). Decisions can be approach-approach, choosing between two
similarly attractive options, or avoidance-avoidance, choosing between the lesser of
two evils, or more commonly, a combination of the two. For example, they may only
have avoidance-type reasons for wanting to change, such as not being able to afford
the drugs any more, but have both avoidant and approach type reasons for the status
quo, “I won’t be able to cope without drugs” and “it relaxes me” respectively.

Miller and Rollnick (2002) emphasise the role of importance (valence –
subjective value of changing) and confidence (expectancy – the perceived probability
of changing). They suggest that clients can be approximated into four motivational
profiles illustrated in Figure 1.1 below, and define these profiles according to whether
the person rates their confidence at changing as being low or high, and also the
importance of changing as being low or high, the most desirable profile in recovery
being high in confidence and high in importance.
<table>
<thead>
<tr>
<th>Importance</th>
<th>Confidence</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>These people neither see change as important, nor believe that they could succeed in making such a change if they tried</td>
<td>These people are confident that they could make the change if they thought it were important to do so, but are not persuaded that they want to change.</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>Here the problem is not in willingness to change, for these people express desire to do so. The problem is low confidence that they could succeed if they tried.</td>
<td>These people see it is important to change and also believe that they could succeed.</td>
<td></td>
</tr>
</tbody>
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*Figure 1.1:* Miller and Rollnick’s (2002) four motivational profiles based upon combination of the dimensions of perceived importance of change, and confidence at being able to change.

The approach of M.I. is very client-focussed, with therapist and client collaborating together, along with any significant others that the client may choose to involve in the process. Typically M.I. is a brief intervention of one or two sessions in a highly structured format. Clients are assessed during the interview, and are then given reflective feedback, including the use of norms to motivate them to progress through
recovery, by assisting them to understand the severity of their substance-using behaviour (Miller & Rollnick, 2002).

During the first stage, the clinician focuses upon establishing rapport with the client. Once this has been achieved as well as possible, the clinician progresses onto the second stage: exploring the positive and negative aspects of the client’s substance use. This is a process that involves completing a decisional balance looking at the pros and cons of change, and there are many variants of this technique (Addy & Ritter 2000; Miller & Rollnick 2002).

The third stage involves the clinician and client addressing any ambivalence so as to foster stable and consistent motivation. Miller and Rollnick talk about ambivalence being normal, potentially powerful, ongoing, and changing. As the person goes through their day, the arguments for and against a shift in their drug-using behaviour also change. This is not only in terms of the specific reasons themselves, but also in terms of their subjective weight and intensity (Miller & Rollnick, 2002). An example of this would be a drinker who states that alcohol helps relax him. Whilst this clearly would be an argument in favour of continuing to drink, the relative weighting of this particular motivator would increase if that person were currently experiencing a panic attack, and conversely, it would decrease if they were already in a relaxed state.

Addressing resistance to the concept of change forms the fourth stage of M.I.. Resistance refers to the person’s reluctance to entertain the notion that there are valid arguments against their ongoing substance-using behaviour. Worrell (1999) describe four main types of resistance that occur in M.I.. The first involves arguing, where irrespective of what the clinician says, the client comes back with a counter-argument rather than being open and willing to explore the alternative point of view. The client may also attempt to discredit the clinician’s expertise or knowledge base.
Interrupting the clinician is Worrell’s (1999) second type of resistance, whereby the client is highly defensive regarding their current situation and often is already poised to knock down anything that the clinician might say, irrespective of the content. Usually they will constantly interrupt, finding exception with almost everything that the clinician says. The third type of resistance is denying. Such clients, for whatever reason, are either unable or unwilling to entertain some or all of the negatives associated with their substance use (Worrell, 1999).

The fourth type of resistance described by Worrell (1999) is ignoring: the passive version of denying. Rather than actively negating the arguments and ideas put forward by the clinician, the client blanks them out. Very typically this is the silent or quiet client – and presents as though they are challenging the clinician by not involving themselves in the process (Worrell, 1999). The fifth and final stage of M.I. involves the clinician summing up what has been discussed, what conclusions have been reached, and identifying what the next steps are to be (Miller & Rollnick, 2002).

The style adopted by the clinician conducting a Motivational Interview is based around five principles. The first principle is that of ‘expressing empathy’. Empathy, Miller and Rollnick argue, is different to sympathy which is akin to feeling sorry for someone. Rather, empathy is the clinician’s ability to align him or herself with what the client is feeling within the therapeutic relationship in order to better appreciate their perspective (Miller & Rollnick, 2002).

The second principle, to ‘develop discrepancy’, involves the clinician in a gentle and non-confronting manner, drawing the client’s attention to the objective reality of their situation as opposed to the often distorted way that they see their life. M.I. does this by highlighting the discrepancies and inconsistencies between how they subjectively see their life and the reality of their life with the addiction. Further
discrepancies are also highlighted between what they want out of life and where the addicted behaviour is leading them. This is best achieved when it is the client him or herself who is vocalising these discrepancies, rather than having the clinician point them out. Therefore a skilled clinician uses non-leading questions that bring the client to the inevitable conclusion that their life will be better if their problem drinking or drug use changes (Miller & Rollnick, 2002).

The third principle of Motivational Interviewing involves ‘avoiding argument’. The fact that someone is becoming argumentative is usually symptomatic of their increasing discomfort with the way the conversation is going. So pushing harder will only increase their discomfort, resulting in them shutting down all communication, the opposite of what M.I. is trying to achieve. Instead, it is important to recognise the underlying cause of the client’s seemingly argumentative behaviour, and rather than assuming a view on the matter, the clinician asks the client questions that would enable him or her to understand the cause of their discomfort (Miller & Rollnick, 2002).

Miller and Rollnick’s fourth principle recommends that the clinician ‘roll’ (sic) with client resistance rather than confront it head-on. Resistance, like argumentation, occurs when the conversation moves away from topics that the client is comfortable discussion, and the session moves into areas that cause them some degree of psychological or emotional discomfort (Miller & Rollnick, 2002).

“Supporting self-efficacy” is the fifth principle of M.I. This represents the significant role played by the person’s belief in their ability to change. As has already been described, if someone has poor understanding of their addiction, and has received ineffective treatment in the past, they are unlikely to have confidence in any form of treatment (Miller & Rollnick, 2002). Aser and Lapsey (1999), in their review entitled
'what works in therapy', found a considerable body of evidence to support this notion, reporting that ‘hope’ accounted for around 15% of what influences positive outcomes in therapy.

Miller and Rollnick (2002) also discuss the importance of the person being ready, willing and able to change. Readiness refers to the person’s priorities, and where changing the behaviour fits into their priorities and life. Willingness refers to the basic desire to change, the client’s perception that change is preferable to the status quo resulting from a resolution of their ambivalence. The final part of the trio revers to being able to change, wherein the person has the resources, tools, and capacity to attain and maintain change (Miller & Rollnick, 2002).

There has been a considerable body of literature supporting M.I. as a tool for enhancing motivation. A 1988 study of an early form of Motivational Interviewing (a two hour Drinker's Check-up assessment and feedback session) found that six weeks after receiving the feedback there were modest but significant decreases in alcohol consumption (Miller, Sovereign, & Krege, 1988). It is unclear whether this effect was a direct result of the interview, or caused by a secondary process such as the reaction of the participant to having someone take an interest in them, as neither this study, nor a follow up study (Miller et al., 1993) included controls for this effect. However in the 1993 study, Miller et al. did find that a confronting therapist style was a significant predictor of increased drinking 12 months after the Motivational Interviewing session.

More recent support for the efficacy of M.I. in both retaining clients in treatment, and extending periods of abstinence post treatment, can be found in the literature with Secades-Villa, Fernández-Hermida, and Arnáez-Montaraz (2004) finding that motivational interviewing significantly increases treatment retention (50% as opposed to 20%), and Miller (2006) finding that abstinence rates were double 12
months after a one-hour motivational interviewing session, compared to controls who underwent an assessment interview alone.

In addition to the studies described above, there seems to be significant support in the literature to suggest that M.I. does improve treatment outcomes, with many different studies supporting the efficacy of this technique, although very little research has been employed in settings other than those treating alcoholism (Foote, 1999). In another study exploring the role of motivation in addiction treatment outcomes, Miller and Sanchez (1994) reviewed interventions in the treatment of alcoholism, and derived six common motivational elements from empirically tested successful treatments, which they described with the acronym FRAMES. These elements seem to support the five principles behind Miller and Rollnick’s 1991 Motivational Interviewing. These common elements are: the use of objective Feedback; stressing the client’s Responsibility; therapist objective Advice; offering clients a Menu of options; using Empathy; and fostering Self-efficacy (Miller & Sanchez, 1994).

Although Motivational Interviewing is usually cited as a model for enhancing client motivation, it takes the view that motivation itself is something that can be nurtured and developed by means of specific tools rather than something that can be addressed directly. Miller and Sanchez (1994) see FRAMES as being a way to increase rates of engagement in treatment and to reduce alcohol consumption.

What is noticeably absent in the literature, however, is a thorough investigation into the composition of motivation and an analysis of its qualitative properties. Some of these properties have been described in the literature: intrinsic versus extrinsic motivators (Blume, Schmaling, & Marlatt, 2006; Deci, 1972); coercive versus self-directed motivation, (Hser et al., 1998; Wild, 2006); approach versus avoidant reasons (Miller & Rollnick, 1991); subjective importance of the reasons for change (Miller &
Rollnick, 2002); and the role of perceived importance of changing (Kennett, Morris, & Bangs, 2006; Miller & Rollnick; 2002). However the author is unaware of an attempt to formulate a comprehensive theory of the role that links these and other qualitative characteristics of motivation and discusses their combined influence to enhance a person’s ability to not only change their substance-using behaviour, but also to maintain that change.

According to Miller (1995), motivation within the field of addiction is often viewed as being a characteristic of the client - a personality state. It is often regarded as a uni-dimensional construct, with clients described along a continuum from highly motivated towards recovery through to highly unmotivated. Interventions therefore focus upon shifting motivation towards sobriety. However this one-dimensional construct does not account for the complex factors underlying and influencing motivation in addiction, unlike motivation to change in non-addicted behaviours, such as ‘bad habits’.

Therefore it is possible that strength, direction and consistency of motivation are products of a variety of volatile subfactors, the sum of which at any one time results in the individual’s apparent motivation. Although, as is discussed below, some of these factors have already been described in the literature, there are few comprehensive studies that attempt to identify them together and explore their roles, efficacy and interactions.

Most people with addictions, despite their problems, appear to prefer to remain as they are (Hser et al., 1998). They display little interest in altering their way of life except at times of great distress, when they are more motivated by the need to eliminate their immediate anxiety rather than a desire to improve their quality of life (Salzman, 1976). Baker et al. (2004) affirm the belief that escape or avoidance of
negative affect is the principal motive for addictive drug use, a view that has long been supported (Solomon, 1977).

What is clear though is that motivation in addiction recovery is required not only at the start of treatment in order to initiate change. Rather it is also required on an ongoing basis in order to maintain that change.

1.6 Maintaining motivation in treatment and beyond

As well as the need to motivate substance-users to seek help, there is also the significant issue of how to maintain that motivation throughout the treatment process and on into recovery, so preventing a return to substance use. Such returns after a period of abstinence can be divided into two categories, being a lapse (a brief return to drug-use followed by successful abstinence) and relapse (an ongoing return to drug-use). Brownell et al. (1986) suggest the following definition:

A lapse is a single event, a re-emergence of a previous habit, which may or may not lead to the state of relapse. When a slip or mistake is defined as a lapse it implies that corrective action can be taken, not that control is lost completely…. A lapse, therefore, could be defined concretely as use of the substance…. The individual's response to these lapses determines whether relapse has occurred…. and may be perceived as loss of control. (p 776)

However, the literature in this area has not investigated the role of motivation in lapsing and relapsing. Rather it looks at other factors such as craving triggers and self-efficacy. For example, degree of spirituality or religiousness has been found to be positively correlated with length of sobriety (Poage, Ketzenberger & Olson, 2004). Marlatt and Gordon (1985b) proposed a cognitive-behavioural model of lapse and relapse prevention based around coping skills. In their model, the individual enters a high-risk situation, and if they have an adequate coping response they remain
abstinent, increasing their sense of self-efficacy, and decreasing the probability of another relapse in the future. If they do not possess an adequate coping response, then there are several courses that they may follow. These are based upon the positive outcome expectancy from using the substance coupled with decreased self-efficacy at coping without it (Baer, Kivlahan, & Donovan, 1999).

A limitation of Marlatt’s (1985b) approach model is that it assumes that lapsing and relapsing are primarily the result of coping skills deficits, and this approach does not give as much weight to other causal factors such as failing to remain motivated to maintain new behaviour. It suggests that if the individual had not entered the high-risk situation without adequate coping responses, then there would have been no risk of relapse. Whilst it may be true that there are many highly motivated individuals who do indeed lapse because of poor coping skills, there may also be individuals who relapse without any significant trigger, simply because their desire to maintain the new behaviour has diminished. They may have had excellent coping mechanisms, however they still prefer to use substances.

So whether or not an individual employs their coping mechanisms in high-risk situations, there still has to be a basic preference or desire for sobriety over continued substance use to ensure that the person will employ such mechanisms, rather than following what may be perceived as the easier approach, which is to use a drug as a quick fix. Anecdotal stories from substance abusers often report that, having successfully completed a detox program and learned strategies to be able to cope with life in sobriety, they choose to resume their substance use not realising that it would likely return to the same problematic levels as before or higher (Jellinek, 1960).

In attempting to establish what predicts relapse, Miller et al. (1996) point out the difficulties in establishing the antecedents of relapse. Is there a true causal
relationship between these events, or just a sequential one? Furthermore, individuals can have difficulty reporting what was happening prior to their lapse, both in their environment, and in their cognitions. In their study, Miller et al. (1996) attempted to evaluate both dynamic (e.g., coping behaviours) and static (e.g., ethnicity) antecedents to relapse that have been suggested in various conceptual, clinical and empirical models. Miller et al. (1996) chose to divide antecedents of a relapse into six primary domains, being:

1. The occurrence of negative life events
2. Cognitive appraisal variables including self-efficacy, alcohol expectancies, and motivation for change
3. Client coping resources
4. Craving experiences
5. Affective/mood status
6. Pre-treatment characteristics

However, the issue of client motivation is not comprehensively addressed in this study because the measure of motivation was the SOCRATES (Stages Of Change Readiness and Treatment Eagerness Scale, version 8, Miller & Tonigan, 1990) and an unpublished 42 item decisional balance scale. The SOCRATES is limited in the way that it measures motivation because instead of exploring and assessing the specific reasons behind the person’s motivation, such as whether the reasons are approach or avoidant, or self-directed or coerced, it only assesses: 1) recognition: the person’s perception of their substance use, 2) ambivalence: the degree to which they are considering the consequences of their substance use and 3) taking steps: what if anything they have already done to change their substance use. The purpose of this is
to allocate the person to a particular stage in Prochaska and DiClemente's model (1986).

This having been said, Miller et al’s (1996) study found that the only domain not predictive of relapse was the occurrence of negative life events, and of the remaining five, the client's coping resources was the most strongly predictive, with an accuracy of 85%. Amongst the pre-treatment characteristics, only one remained positively predictive, and that was the degree to which the individual subscribed to the disease model theory. They also found that proximal antecedents, that is those more recent events in the individual's life, were more predictive than distal antecedents and that of the mood measures utilised, only Beck's Depression Inventory score (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) was a predictor.

It is important to recognise that motivation for recovery is essential not only in terms of assisting the person to seek help to attempt a change, but also in their ability to complete treatment and then maintain that change into recovery. However, whereas much research and literature has been published about the role of motivation in help-seeking, when it comes to the latter, maintaining that change, the focus has been on coping skills and other factors, with less emphasis placed upon the role of motivation. In order to further understand the significance of motivation in both initiating and maintaining recovery, it is necessary to further explore the nature of motivation and how both generic and addiction-specific motivational theories relate to this subject.

1.7 Summary

Motivation is just one aspect of recovery that therapists must take into account when working with clients. As Marlatt (1985a) put it:

Motivation alone is not enough since it leaves the person relying upon ill-defined resources such as 'will-power' to carry out the task… certainly motivation is an
important and necessary first step, but one also needs a way to proceed that goes beyond motivational drive… (p 21)

There are many other variables and factors that influence an individual’s ability to control or change his or her addicted behaviour, and it is important to note that these may not be mutually exclusive from each other.

Nonetheless, there is a clear role for motivational-based interventions in the treatment of addiction at all stages of a person’s recovery. First, they are needed to generate motivation for change in precontemplators, repressors and contemplators. Second, there are the factors that maintain the person’s motivation to complete their treatment through the action stage of change, and third, there are the reasons that sustain their motivation for sobriety in the maintenance stage of change.

Motivational Interviewing (Miller & Rollnick, 1991) is an effective tool to assist in the progression from the early stages of change through to action. However, it is of reduced use in the maintenance stage of change. Clinical settings may benefit from further investigating the use of motivational-based interventions throughout the action and maintenance stages of change.

The next chapter examines the literature on motivation and change in areas other than addicted behaviours, with a view to gaining further insights that may assist in the development of such interventions.
2.1 What is Motivation?

In general psychology as well as the popular vernacular, the concept of motivation has a wide variety of meanings and uses. The Australian Concise Oxford Dictionary (2003) defines ‘motivate’ as being a transitive verb, ‘…to cause a person to act in a particular way’ (p 913). In terms of behaviour, the concept of motivation can be meant reflexively, referring to the urge to change for example ‘he has strong motivation to quit smoking’. The word is also commonly used to refer to the reasons behind the urge to change, for example, ‘his motivation is the desire to get fit’. In Chapter One, motivation to change addictive substance-using behaviours has been shown to be more complex than a simply linear construct. Rather, a multi-dimensional concept is indicated, several dimensions having already been suggested by the literature. As well as measuring motivation in terms of strength, it can also be measured on other dimensions such as: intrinsic versus extrinsic motivators (Blume, Schmaling, & Marlatt, 2006; Deci, 1972); coercive versus self-directed motivation, (Hser et al., 1998; Wild, 2006); approach/constructive versus avoidant reasons (Miller & Rollnick, 1991); subjective confidence in the reasons for change (Miller & Rollnick, 2002); and the role of perceived importance of changing (Kennett, Morris, & Bangs, 2006; Miller & Rollnick, 2002). This chapter explores the concept of motivation in the broader psychological literature, outside of the field of addiction psychology, with a view to establishing further support for these dimensions, and to determine whether any other dimensions of motivation may be applied to this area.
2.2 *What creates motivation?*

An assumption that all psychological models of motivation seem to share is that there must always be a trigger for motivation. These triggers can occur either in the body as a physical sensation, at a cognitive or emotional level, as a primal urge or drive, or even from a person’s environment. Examples of such triggers can be found in the literature dating as far back as the early 20th century, and these include physiological states such as pain or discomfort (Skinner, 1938 (as cited in Kowalski & Westin, 2006)); drives such as hunger or thirst (Hull, 1943); cognitive and emotional expectancy of punishment and reward (Thorndike, 1911; Skinner, 1938 (as cited in Kowalski & Westin, 2006)); or more humanistic and existential forces such as self-actualisation (Maslow, 1954; Miller 2002).

2.3 *Motivation and psychotherapy*

To achieve change or modification to a behaviour that is causing some degree of distress to the individual could be described as being the core purpose of psychotherapy and is the reason why most people are motivated to seek help. Wolpe (1976, p58) suggested that: “The general goal of psychotherapy is to change and if possible eliminate learned habit patterns that are unadaptive”, although it is now widely accepted that addicted substance-using behaviours are more complex than simply being a matter of a bad habit.

Bandura’s Social Learning Theory along with those treatment approaches based around his theory, targets defensive and usually anxiety-provoking behaviours (Bandura, 1976). It is usually the negative consequences of such behaviour that provides the motivation to change. Frank (1976) suggested that “loss of morale is a necessary and often sufficient reason for a person to seek psychotherapy”, suggesting
that people usually present to therapists “to seek relief for an enormous variety of symptoms and behavior disorders.” (p73).

Wolpe (1976), Bandura (1976) and Frank’s (1976) suggestions about what motivates people into therapy represent just three of the many proposed in the literature to explain why people are motivated to seek help. Nonetheless, their theories share one common feature: which is that, in the case of motivation for treatment, the trigger is proposed to be the need to alleviate discomfort, or what are called, avoidant type motivators.

This need to alleviate discomfort ties in closely with the disease/medical model (Jellineck, 1960; Nathan & Harris, 1975), an approach that underlies the philosophy behind Western medicine. It purports that the role of medicine is to intervene when the person becomes ill, targeting pathological agents, rather than to maintain or enhance health. So from within Western cultures, motivation to seek professional help develops when a person is experiencing some form of discomfort.

2.4 Psychological theories of motivation to change.

There are hundreds of different forms of psychotherapy in existence today stemming from a wide variety of theories and models of human and animal behaviour, and there are many different ideas about how best to arouse motivation to change. Below is a brief historical overview of some of the more common theories, which will, in Chapter Three, be drawn together and a comprehensive multi-dimensional model of motivation proposed.

2.4.1 Free will, religion, determinism and metaphysics.

Western Christian thinkers are split on the degree to which human behaviour is truly free, or is pre-determined by the past and by God’s Will (Wikipedia, 2006). Nonetheless, Western Christian society has traditionally viewed human behaviour as
being a matter of free will unless benevolent or malevolent forces were in control such as demonic possession. Antisocial or harmful behaviours such as addictions were once considered a moral weakness rather than a medical condition.

However, with the advent of modern psychology evolving from the pioneering work of the likes of Charcot and Freud (Herman, 1992), a different concept of human behaviour began to evolve, whereby forces other than fate and the supernatural governed human actions. Rather it was proposed that human psychological make up was in fact highly complex, with not all components under the free volition and control of the individual (Freud, 1962).

2.4.2 Psychoanalytic theories

In essence, psychoanalytic theory proposes that human behaviour is motivated by a constant battle of subconscious ‘id’ drives (Freud, 1962). As a person grows, they develop the ‘ego’ and finally, the ‘superego’ as a way of managing these drives and evolving into a well-adjusted human being capable of moderating his or her behaviour despite the constant inner conflict that results from the opposing ebb and flow of these drives.

Psychoanalytic therapy proposes that psychological distress, or ‘neurosis’, is a consequence of subconscious conflicts stemming from the id’s needs failing to be healthily managed by the ego and superego, with the cause stemming from early childhood and infancy (Freud, 1962). Clients are motivated to change their behaviour and/or seek help when there is a breakdown of these defence mechanisms, or the defence mechanisms are no longer able to manage and maintain these conflicts (Marmor, 1976), or when the mechanisms themselves are causing the person an unbearable level of distress. Change occurs by bringing these unconscious drives and
conflicts into the conscious domain, where they are able to be resolved within the therapeutic relationship.

Psychoanalysis has continued to evolve throughout the 20th century, with Freud (1962) suggesting that action (motivation) and behaviour are the result of internal, biological instincts. These instincts are classified into two categories: life or eros (sexual) and death or thanatos (aggression). However, many of Freud's students broke away from him over this concept, for example, Erikson (1993) highlighted the role that interpersonal and social relationships play in moderating human motivation and its consequent behaviour.

2.4.3 Behaviourism

The movement that became known as behaviourism brought psychology into the realm of modern science because, unlike psychoanalysis, the implicit clear principles and laws for governing behaviour are readily demonstrated by empirical means (empiricism being the current paradigm for scientific credibility). Behaviourism stems from B.F. Skinner’s (1953) theory that there are many similarities between human and animal behaviour and that systematic observation provides the key to understanding the rules that underlie such behaviours, and therefore, once these rules have been identified, one is able to predict behaviours as well as moderate dysfunctional ones. Learning occurs via operant conditioning (Skinner, 1953), classical conditioning, modelling, vicarious learning and social learning (Bandura, 1976).

However, even before Skinner published his findings, Hull proposed a Drive Reduction Theory (Hull 1943) which also evolved out of early observation of animal behaviour. Hull’s approach proposed that behaviour is not just motivated by the balance of pros and cons in responding to stimuli. Rather, it suggests that all higher
animals have certain key drives that play a stronger role than simple decision-making or conditioning. These drives, which can be likened to instincts, include hunger and thirst, and provide extra weight to any decision process when they are activated. As a result, help-seeking behaviour may not simply be a product of pros and cons, rather there could be some underlying instinctual process driving a person to get help.

Therefore motivation, from a behaviourist perspective, results primarily from internal drives (Hull, 1943) and environmental stimuli (Skinner, 1953) that either coerce or induce the organism to respond in particular ways based upon that animal’s prior conditioning to that trigger. This can be the expectation of reward or the avoidance of discomfort as in Miller and Rollnick’s (1991) approach versus avoidant motivators respectively.

Behaviourism is limited in its scope as, on its own, it has been unable to explain the complexity of human behaviour especially with regards to the social needs of human society. Furthermore there is a large variety of possible responses that people can exhibit in response to particular triggers. This approach also has limitations in terms of the motivating triggers themselves, rarely differentiating between triggers common to all animals, and those specific to humans. In addition, animals’ motivation is often based upon instinct or simple learning, whereas people have complex cognitive process based upon a range of factors such as past experience, personal beliefs, and social expectations that all serve to moderate responses to triggers (Kowalski & Westen, 2006).

Nonetheless, current psychological practices have absorbed many behaviourist constructs, resulting in a range of microskills used in psychotherapy to facilitate behaviour change. Yet behaviourism’s main weakness is that it does not place sufficient emphasis on the underlying cognitive processes in decision-making. This is
possibly demonstrated by the observation that people are often unable to be motivated to change seemingly harmful and self-destructive behaviours like addictions.

These cognitive processes had been alluded to in the work of Tolman, who, as early as 1932, had proposed a theory of motivation and learning that started to incorporate the importance of information processing in determining a person’s response to a trigger, which he called sign learning. Tolman suggested that motivation was not simply an automatic response to triggers, rather it was qualified by how individuals interpreted triggers and then learned to modify their behaviour. He proposed five types of learning behind motivation to change behaviour: (1) approach learning, (2) escape learning, (3) avoidance learning, (4) choice-point learning, and (5) latent learning, which although they are beyond the scope of this thesis, are noteworthy, because they represented the first significant step away from pure behaviourism towards a more cognitively-based model of psychology.

2.4.4 Cognitive Theories

Behaviourist theory places a strong emphasis upon the trigger for motivation, suggesting that the resulting behaviour is inevitable once the trigger has occurred. Cognitive theories, on the other hand, emphasise that behaviour is also moderated by the cognitive factors involved in the interpretation of a trigger, which in turn generate motivation where necessary.

Cognitive Dissonance Theory (Festinger, 1957) adapted the psychoanalytic principle that internal conflict is the primary driving force behind behaviour and, consequently, the driving force behind help-seeking behaviour. However, rather than the internal conflict being the result of primal id-based urges, Festinger proposed that when there is a discrepancy between two beliefs, two actions, or between a belief and an action, this will result in a state of psychological discomfort which he calls
cognitive dissonance. Festinger went on to propose that a person would be motivated to act to resolve this conflict and any such discrepancies. The state of dissonance is itself the motivating trigger because it is uncomfortable and therefore motivates the individual to find a new status quo (Festinger, 1957).

This focus upon the internal machinations of human psychology was further illustrated in Decision Theory, which forms the cornerstone of Miller and Rollnick’s (2002) widely used Motivational Interviewing approach to changing addicted behaviours. In Decision Theory, the person evaluates the trigger and the alternative courses of action by assessing the potential positive and negative attributes of each one, what Miller and Rollnick call a decisional balance. These courses of action are then weighed with the one with the stronger loading being the course of action that is followed (Miller & Rollnick 2002).

There have been many variants and developments upon the cognitively-based approach to motivation, one of which is Subjective Expected Utility theory (West, 1989). This approach advances simple decision theory by proposing that rather than behaviour being motivated by a benefits versus costs approach to alternative options, people are motivated to make one choice or another, based upon how the items load from their experience. For example, the economic problems associated with an addicted behaviour may load more heavily for a person with limited finances, than they would for someone with a plentiful income.

Self-determination Theory draws together some of the above theories, and views motivation for behaviour as being derived both from intrinsic (autonomous), and extrinsic (controlling) forces (Deci, 1972). Greater autonomous motivation has consistently predicted increased motivation to self-initiate and persists with target behaviours across diverse study populations (Foote, DeLuca & Magura, 1999).
environment of the individual significantly impacts upon the individual's motivation and several studies have pointed to six features listed below which are central in creating an environment that is supportive of the individual's autonomous process (Foote et al., 1999):

1. Providing information without pressure for a particular outcome
2. Positive feedback concerning competence
3. Absence of pressure to act in a certain way, or achieve a particular outcome
4. Acknowledgment and acceptance of the other's perspective
5. Provision of choice

Several of these characteristics have already been alluded to in the Chapter One. The first recognises the importance of self-determination in change. The second illustrates the role of self-efficacy, as Miller and Rollnick (2002) pointed out, subjective confidence that the person can achieve an outcome predicts motivation towards that outcome. The other four, like the first feature, all allude to the importance of self-determination and minimisation of coercion in motivating help-seeking behaviours.

Attribution Theory (Weiner, 1974) took Self-Determination Theory a step further by suggesting an additional two dimensions to the autonomous/coerced dimension proposed by Foote et al. (1999). Weiner argues that people attempt to explain the successes or failures of themselves or others by offering certain "attributions." These attributions are either ‘internal’ or ‘external’, that is the factors influencing the outcome are either from within the person (such as intelligence, strength, skills), or external (such as other people, access to opportunities). Furthermore, they can be either under the control of the individual or not under their
control. Figure 2.1 illustrates how the person will assess their ability to perform tasks based upon the different combinations of these two dimensions.

Although Attribution Theory was intended to explain how people assess their behaviour retrospectively, it can easily be adapted, emphasising the role of these two factors (internal/external and control/no control) in predicting motivation for future behaviour, with persons being most motivated to perform Internal/Control type tasks (effort) than external/no control type tasks (luck) (Weiner, 1974).

<table>
<thead>
<tr>
<th>Level of control</th>
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<tr>
<td></td>
<td>Internal</td>
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<td>No Control</td>
<td>Ability</td>
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<tr>
<td>Control</td>
<td>Effort</td>
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**Figure 2.1** Weiner’s 1974 two dimensional model showing the relationship between the four ways a person can perceive a particular task, based upon a combination of their subjective level of control, and attributions of the task at hand.

Expectancy theory (Vroom, 1964) can be viewed as a combination of Attribution Theory and Self-Determination Theory. Vroom proposed that when it comes to decision-making and motivation, it is not just a matter of the value of the goal. Rather, it is also the person’s perceived probability of success coupled with the connection of that success and the desired reward that predicts level of motivation. Vroom proposed that for an individual to be strongly motivated towards a goal, all three of these factors must be present, and the stronger each factor, the stronger the
overall motivation. He combined three factors in his description of motivation, shown in figure 2.2.

\[
\text{Motivation} = \text{Expectancy} \times \text{Instrumentality} \times \text{Valance/Value}
\]

Expectancy
Perceived Probability of Success
X
Instrumentality
Connection of Success and Reward
X
Valance/Value
Value of Obtaining Goal

Figure 2.2  Vroom’s 1964 formula demonstrating that the amount of motivation generated was a combination of expectancy of success, connectedness of success and reward, and the value of that particular reward.

It is clear from Vroom’s work that motivation is not a uni-dimensional construct. Rather, it seems to be dependent upon multiple variables which need to be taken into account when trying to generate motivation for help-seeking behaviours in clinical settings.

Karniol and Ross (1996) looked at outcomes of behaviour change over time from a slightly different perspective to Vroom (1964), and found three factors that can influence motivation. First, there was the dimension of positivity, whether the future outcome is good or bad, much akin to Vroom’s Value. The second area they explored was controllability in much the same way as Weiner’s Attribution Theory (1974), or the degree to which the person can influence the future outcome. However, their third dimension was temporal, the time frame required to achieve the desired outcome.
Karniol and Ross argue that the more distant a motivating goal is, the less its attractiveness and so the weaker the motivation it will produce.

The final cognitive approach explored in this thesis represents the work of Leonard, Beauvais, and Scholl (1999) who conducted a review of both the cognitive and behavioural literature on what creates motivation. They surmised that there were five types of sources for motivation that recur with varying relevance and dominance through the majority of the theoretical work on this topic:

1. **Intrinsic Process Motivation**: an individual or group remain motivated to perform the behaviour so long as it remains pleasurable. That is, the pleasure experienced by the act of performing the behaviour motivates continuance of that behaviour. This plays a greater role in early childhood as well as in much animal behaviour, and is closely allied to behaviourist models of motivation. This concept also applies to motivation away from distressing behaviours, that is an individual will usually remain motivated to change whilst they are experiencing discomfort.

2. **Instrumental Motivation**: an individual remains motivated because they perceive a beneficial outcome as a result of their behaviour. This clearly has similarities with behaviourist models of motivation, however, because most modern theories of instrumental motivation also emphasise differences in how the individual can perceive the rewards of a behaviour, it has a greater cognitive relevance than the intrinsic process motivation described above.

3. **External Self Concept-based Motivation**: this type of motivation is based upon the individual setting particular standards for themselves compared to some determined ideal. In this case there is an externally-developed ideal self, based upon how they want others and society to perceive them. This is reinforced by
the feedback they receive. In the case of people with addictions, is often very negative and potentially results in a decrease in motivation.

4. Internal Self Concept-based Motivation: in this type of motivation, rather than a person deriving their notion of an ideal self from society or other people, they have internally developed their own sense of ideal self. This concept reflects the importance of self-esteem in addiction recovery. The logical extension of this type of motivation is that those who have poor self-esteem are likely to have a poorer quality ideal self, and therefore may be less motivated to change. This kind of motivation is more goal focussed, whereas the previous type is more focussed upon comparisons with others.

5. Goal Internalisation: rather than actively assessing the pros and cons of different alternatives as in the case of simple decision theory, some of the motivation is created by default. This occurs when an individual’s values subscribe to a broader dogma, and as a result, other values from that dogma are internalised with less analysis. For example, a person who is a member of a certain political party may be less inclined to question the specific policies of that party if they are in accordance with the overall philosophy of that party (Leonard, Beauvais & Scholl 1999).

2.4.5 Motivation and Humanism

Motivation has long been seen as a part of the essence of humanity and our motivating ideals are one factor that is cited as a key difference between mankind and other animals. As the infant grows through their stages of development, not only do their motivational triggers change and evolve, but their goals and ability to attain them also changes (Piaget, 1983).
Rogerian humanism applies this theory further into adulthood. Rather than focussing upon the micro experience of what creates motivation, namely specific triggers and cognitions, he expanded the concept to include the macro motivators that influence people on a broader scale, with an emphasis upon uniquely human innate needs. The most significant and novel of these is self-actualisation (Rogers, 1961), a term used by Rogers to describe the uniquely human need to rise above and grow or evolve towards some idealised notion of self. This concept of self-actualisation has been more recently explored in the context of spirituality and religiousness, and found to be a strong motivating force and a protective factor when it comes to depression and addiction (Poage, Ketzenberger & Olsen 2004).

Another significant theoretician in the area of motivation is Abraham Maslow (1954) whose hierarchy of needs presented motivating needs in a format that reflected human complexity. At the bottom of his hierarchy are needs common to all living things; basic physiological needs. The further up the evolutionary hierarchy an animal is placed, the greater the range of needs it may have, and the more complex these needs become, to also include safely, belongingness, self- and social-esteem, and finally self-actualisation.

In his ERG theory (an acronym of Existence, Relatedness, and Growth), Alderfer (1972) classifies needs into three categories, which, like Maslow (1954), he also ordered hierarchically, representing a different way of classifying the motivating needs described earlier. Unlike Maslow however, Alderfer’s hierarchy was developed to be more applicable when describing uniquely human behaviour, rather than being an overarching model that incorporates both human and animal behaviour.

Alderfer’s (1972) hierarchy begins with ‘existence’ needs representing those things required for physical well-being. Then he describes ‘relatedness’ needs, which
represent the social aspect of humanity and the importance of interpersonal and intra-societal relationships. Finally, he describes ‘growth’ needs, which he refers to as being the development of competence and realization of potential.

2.4.6 Other Theories of Motivation

There have been a host of other theories of motivation proposed over the past hundred years, and space does not permit a full review of all of them. The following section examines some of the more dominant models which have influenced modern psychological thinking and which are relevant to this thesis.

In 1959, Hertzberg proposed what he described as a Two Factor theory of motivation. According to Herzberg, there are two kinds of factors that affect motivation, and whereas other theories described have classified motivation according to the underlying need behind the motivator, this model looks at the nature of the motivator itself.

The first type of factor Hertzberg describes as ‘hygiene’ factors. These are factors whose absence motivates, but whose presence has no perceived effect. They are things that, when taken away, result in a person becoming dissatisfied and being motivated to act to get them back. A relevant example is heroin to a heroin-addicted person. People with long-term addictions do not use drugs only to get high, they also use them to abate the painful withdrawal syndrome, approximate a state of normality. Other examples of hygiene factors include decent working conditions, pay, family stability, and basic health (Hertzberg, 1954).

Hertzberg’s (1959) second type of factor are described as motivators, that is to say, things whose actual presence motivates, such as an opportunity for promotion. Their absence does not cause any particular dissatisfaction; it just fails to motivate. Examples include the drives at the top of the Maslow hierarchy and intrinsic
motivators. From a more humanistic point of view, hygiene factors are those required to attain a sense of contentedness and well-being, whereas motivators are factors that can provide additional motivation. It is noteworthy that the two scales are independent, and a person can be high or low on each (Hertzberg, 1959).

A study of gamblers’ motivators by Kusyszyn (1990) resulted in the development of another theory of human motivating needs, based around a more existential perspective of psychology. Kusyszyn proposed that people have three basic interrelated needs, focusing more upon types of need, rather than specific needs. These needs are (1) a need to confirm their existence, (2) a need to affirm their worth, and (3) a need to produce effects (be a causal agent).

Kusyszyn’s theory goes further to propose that (4) when the behaviours produce desired (intended) effects, the person experiences pleasure (e.g., joy); and when they fail to produce desired effects, they experience displeasure (e.g., disappointment). Finally, he proposed that (5) the principle of least effort applies – in that people will choose the least strenuous pathway when given two similar options, and (6) mental, emotional, and bodily blocks act as impediments to the confirmation of existence, to the affirmation of worth, and to the production of effects (Kusyszyn, 1990).

A problem with Kusyszyn’s theory is that it still treats the person as an individual independent entity, not including the possibility that much of human behaviour is motivated socially. Adams (1965), proposed a theory that explored this aspect of motivation, looking at the role of peer groups and society upon motivation, which he called ‘Equity Theory’. Like Vroom (1964) and West (1989), Equity Theory emphasises the person’s perception of the motivator, rather than the objective value of the motivator itself. However, unlike the other theories, it suggests that this subjective
weighting is determined primarily by the person comparing their situation with other people. This principle continues to have a strong influence upon 20th century economic theory.

2.5 *Generic Motivation Theory and Addiction*

It is clear from this brief history of motivational theory as well as the discussion of motivation in Chapter One that there are a wide variety of theories relating to what motivates human behaviour. Many of these theories can be applied to the disorder of addiction. For example, Drive Reduction Theory (Hull, 1943) would suggest that much addicted behaviour is governed by the need to reduce the craving drive. This notion is supported by Miller and Gold (1991), who suggest that the drive states of sex, hunger, and thirst are very similar to addicted behaviour, as they also can trigger cravings.

West (1989) proposed three ways in which drives may be thought to underlie addiction. First, a drug or behaviour may reduce a 'natural' drive state that existed in the individual prior to him or her succumbing to the addiction. Second, a drug or behaviour may alter the way a 'natural' drive mechanism works so that it becomes increasingly attuned to absence of that addictive agent. And third, a drug or behaviour may set up a new drive mechanism creating a need for itself which bears no relations to any pre-existing drive mechanism.

Cognitive theories such as those of Festinger (1957), Vroom (1964), Deci (1972), Weiner (1974), West (1989), and Foote (1999) place their emphasis upon not only the motivational trigger (whether it is a drive, a future or current reward, or a future or current discomfort), but also upon how the person perceives that reward or discomfort.
Cognitive dissonance theory (Festinger, 1957) proposes that as well as drives and learned behavioural patterns, motivation can also be initiated by an internal conflict between current behaviour and desired outcome. When the behaviour and desired outcome are not mutually compatible, motivation is produced. However, whereas in the case of non-addicted behaviours, this need would result in the changing of the current behaviour, because addicted behaviours are not fully under the individual’s conscious control, this may not be possible. Instead, the person has no choice but to change their desired outcome, entering into what drug and alcohol clinicians call ‘denial’ about their substance use. In such cases, the person enters a state where they are unable to consciously admit to the need or desire to change, despite the overwhelming evidence to the contrary.

Jones and McMahon (1996) explored Vroom’s notion of expectancy and value as discrete and independent entities in the context of addiction, specifically with clients addicted to alcohol. They looked at research that had broken down many previously held uni-dimensional constructs. For example, within social learning theory, positive alcohol expectancies represent motivation to drink, and negative expectancies provide motivation to restrain. This results in cognitive affect (feelings) that mediate the occurrence of that behaviour.

Traditionally, Jones and McMahon (1996) say that the impact of expectancies upon a drinker's behaviour has been shown on a uni-dimensional scale, however they report that recent studies have found that expectancy and value were independent of each other. Their study focused upon both expectancy (the perceived consequences of the behaviour) and the value that the participant attributes to that expectancy. For example, 'feeling more talkative' was a positive expectancy, their rating of the value that the person attributes to this in terms of whether they felt that it was a positive
outcome or not, was independent of their rating of the likelihood that they would feel more talkative.

The models and theories presented in the first two chapters are drawn together in the next chapter into a multidimensional model of motivation in the context of changing substance-addicted behaviour. This is followed by two studies that assess the validity and implications of this model.
Chapter 3 – An alternative model of motivation in addiction

3.1 Preamble

As has been described in previous chapters, there are many factors that play a role in motivation to change. These include: environmental factors, therapist style, accessibility of services, and belief in one’s own ability to change. There are also a wide variety of theories that have attempted to explain the phenomenon of motivation and how it is created. However, many of these theories take the view that motivation is a linear construct based upon its strength or intensity, from non-existent to very strong.

In the author’s experience of working with a variety of people suffering from substance addictions, the strength of their motivation to change their substance using behaviour seems to have had little effect upon whether they were able to maintain the change once they completed their withdrawal. Furthermore, and almost paradoxically, it sometimes appears to have had the reverse effect. That is to say, the stronger the reasons for changing, the more their substance use increases and the less the person attempts change. For example, many of the substance-addicted clients from the authors own professional experience have been drawn from forensic populations, and were ordered into treatment prior to sentencing. Although some clients could have been described as just ‘going through the motions’ in order to get a good report, many others appeared to be genuinely motivated to be rid of their addiction. However, it appeared that many of these clients would lapse very quickly after they had received their sentence, and would subsequently report that they were highly distressed by this fact. This suggested that although motivation to change had been generated, it was quite transient and, in examples like those described above, the motivation was almost entirely dependent upon outside forces.
Another client group of substance-addicted clients that the author has worked with are those referred through child protective services. The majority of this group were mothers suffering from heroin addiction, and the condition had become sufficiently severe to warrant intervention by protective services. These mothers were required to cease their drug use or else they would either temporarily or permanently lose custody of their children. Despite this, a large number of these women were unable to overcome their addiction, even though they had what may be argued as being one of the most powerful of all motivating reasons a person can experience – the threat of removal of their children.

An observer with little understanding of the subtleties and nuances of addiction may conclude that these women are simply choosing between the drug and their children, and because they ‘chose’ the drug, they must be a bad person and morally destitute. However, in working with these women, and having the privilege of being able to develop trusting relationships with them, it was clear and apparent that they experienced tremendous distress, shame, remorse and a sense of powerlessness over this situation and their illness. Nevertheless, in many cases, they were still not able to stop their drug use. It became clear that, no matter how strong the motivator, many of these women seemed unable to change. Yet, when they were given access and visits with their children after removal, some were able to begin to reduce and often eliminate their drug use. It seemed that the threat of the removal of their children, a punishment in the behaviourist sense, even though very strong, was not as motivating as the reward of being granted visits to see them.

A third group of clients whose behaviour also lead me to question motivation and how it is perceived it in the context of addiction, were clients in the over 50 age bracket also suffering from alcoholism. Many of these clients were referred by their
doctors or family members, but seemed to be ambivalent about their drinking. Whilst many indeed were also ambivalent about living and therefore were not concerned by the fact that their alcohol use was killing them, others clearly identified a desire to live and had good insight into the fact that their drinking had resulted in liver, pancreatic and brain damage. Despite this, many were still unmotivated to change. Again, this seemed to be another example of a negative consequence (their impending death) being ineffective at motivating them to change no matter how extreme it may be.

These clinical experiences seemed to throw doubt upon some current best practices and the way that clinicians are taught to conceptualise motivation when working in substance addiction. Therefore, this thesis proposes that motivation is a multidimensional construct that is constantly changing over time, rather than simply existing on a single continuum from weak to strong. Motivation seems to have two primary qualities: strength (i.e., how strongly the person is motivated to perform the behaviour) and direction or goal (i.e., either towards some current or future desirable outcome, or away from some current or future undesirable outcome) however, as can be seen from the three client groups discussed at the beginning of this chapter, these two primary qualities are not necessarily related to the strength and direction of the trigger.

Something that may be strongly motivating at one time may exert a weaker motivating influence at a later stage, or in some cases, even motivate towards an alternative behaviour. Take the example of a drinker whose main motivating reason for wanting to stop is that they hate their children seeing them drunk. This reason is strongly motivating at first, however, come the weekend when the children are off to stay with friends and the drinker is home alone, this reason is not as motivating and the drinker may find themselves drinking again.
There follows an overview of how this study proposes to model motivation, both in terms of understanding what motivation is, and how it is created and maintained. Based upon the author’s clinical group work, it would appear that clients are able to identify four domains of trigger. First, there are physical/bodily sensations, such as heat, itching, pain, and pleasure. Then there are instinctual drives and craving, such as hunger, sex, and self-preservation.

Third, there are different emotional and arousal states, such as anxiety, happiness, mania, and guilt, and finally, motivation can be created by certain cognitions or thoughts, such as ‘if I don’t go to work I won’t get paid and won’t be able to pay my mortgage’. These four triggers are illustrated in Figure 3.1 below, each or in combination producing motivation to drink/use or abstain. However, once generated, motivation is moderated by a variety of factors.

Figure 3.1 Hypothesised sources of motivation showing how motivation to perform a behaviour or change a behaviour can be generated by physical sensations, emotions, thoughts and instinctual urges.

This variable nature of motivation is at the core of the model of motivation investigated in this study. It assumes that behaviour is the product of a number of often-conflicting internal and external motivators. Furthermore, physical sensations,
emotions, instincts and thoughts vary in terms of the amount of motivation that they can create, with physical sensations and emotions having the potential to prevail over thoughts. Applied to addiction, it may be argued that when a person is being motivated by either the physical pain of withdrawal, the instinctual urge of a craving, or certain emotional distress, then these will create more motivation to use their drug than their conscious cognitive response to abstain.

There are other factors that also moderate motivation and behaviour. For example, certain personality traits or defence mechanisms may be blocking their willingness to change. These factors are beyond the scope of this thesis but are noteworthy nonetheless. This study instead will be describing and evaluating eight dimensions that may be used to measure individual motivating reasons. Most of these eight dimensions have already been directly or indirectly identified in the literature presented in the first two chapters of this thesis. However, to the author’s knowledge, this is the first time that they have all been brought together into one comprehensive model of motivation.

These dimensions of individual motivating reasons have been broken down in this study into two broad categories: five that are content-based (referring to the objective nature of the reason) and three that are process-based (referring to how the motivator is perceived by the person) and each will be discussed in the following pages. Figure 3.2 below illustrates the model used in this thesis.
Figure 3.2 Motivation to change behaviour and its constituent parts. Of the motivating reasons listed above, some align with motivation to change, other with motivation to remain the same. However, each of these reasons can be measured upon eight dimensions listed down the left hand side of the figure.

3.2 Content-based dimensions

Five of the eight motivational dimensions are content-based, and are the first five shown on the left in Figure 3.2. They refer to objectively measurable features of the motivating reason and are described below. The five content-based dimensions are:

- Constructive vs. Avoidant
- Coerced vs. Self-Directed
- Internal vs. External Locus of Control
• Real vs. Hypothetical Experience

• The time frame for achieving the motivator

3.2.1 Constructive versus Avoidant.

The first dimension describes whether the motivator is constructive (approach) or avoidant. This feature of motivation was identified in the work of Tolman (1932) and again more recently in the work of Miller and Rollnick (2002), who both describe the difference between avoidant and approach motivational styles, along with Cox, Blount, Bair and Hosier (2000) who discussed goals that are incongruent with drug use. This qualitative characteristic of motivation is akin to the traditional behaviourist view that change is motivated either by avoiding negative consequences or punishment (avoidant), or by gaining reward (approach/constructive) (Salzman, 1976). In addiction, this could be translated as a person’s motivation to change their behaviour being based upon their need to avoid or remove the undesirable consequences of their current and continued drug use, or whether their motivation is based upon the desire for certain perceived benefits conditional upon abstinence from their drug taking behaviour.

Some examples of constructive motivators reported by clients from the author’s clinical work have included: “to be a better mother”, “to enable me to save up for a car”, and “to be able to live to see my grandchildren”. Examples of avoidant motivating reasons provided by clients are: “so I don’t go to jail”, “I hate waking up feeling sick every morning” and “my doctor says it’s destroying my liver”.

In colloquial usage, there may be value judgments attached to the terms “constructive” and “avoidant” used to describe these two different types of motivating reason. However, it is important to note that in this context no such value judgments
are implied, in much the same way as there is no value judgment attributed when the
terms ‘positive’ and ‘negative’ are used to describe symptoms of mental illness. This
is because both types of reason can motivate an individual towards changing their
substance-using behaviour. But one of the questions that this thesis seeks to explore is
which type of motivating reason is more effective at not only initiating change, but
maintaining a sober lifestyle.

One piece of research in support of constructive motivators being more
effective than avoidant ones was conducted by Cox et al. (2000). They looked at the
pursuit of positive goals that were incongruent with continuing drug-use (constructive
motivators). They compared individuals whose motivation was based upon the pursuit
of (adaptive) goals that were likely to be attained, and in doing so would bring them
emotional satisfaction (reward), against those who are not as emotionally committed to
their goals. The results showed that adaptive goals were a positive predictor of
readiness to change. Mellers, Schwartz and Ritov (1999) discussed the role of
expected positive emotion (pleasure) in the context of decision-making, highlighting
the differences between their subjective expected pleasure theory and subjective
expected utility theory. They also found a further benefit, in that people were found to
be better problem solvers when in a good mood.

One caveat here is that the constructive or avoidant nature of a motivator is not
always transparent. For example, if a man says that he wants to stop drinking for his
wife, it is not overtly clear whether this is constructive or avoidant. If, upon further
questioning, it transpires that the man’s motivation is based upon the fear of losing his
wife in a divorce, then this would be classified as an avoidant motivator. However if
his motivation is based upon the desire to return the marriage back to happier times,
then this would be classified as a constructive motivator as he is more motivated by
the reward than by fear of negative consequences. Therefore when attempting to identify whether a motivator is constructive or avoidant, it is important to identify the emotion attached to the outcome. If it is pleasant then it is likely to be a constructive motivator. But if it is unpleasant, then the motivating reason is likely to be avoidant.

One significant issue that the differentiation of constructive and avoidant motivators brings to treatment can be seen in a decision balance table. Motivation to drink or become sober can be conceptualised by a seesaw or set of scales, hence the name ‘decisional balance’.

Motivating reasons are often divided into two categories, the ‘good things about drinking’ (constructive reasons not to change) and the ‘not so good (bad) things about drinking’ (avoidant reasons to change) respectively. However, although on the surface these two categories seem to be comprehensive, in fact they only account for the avoidant reasons, and do not include the constructive reasons, the ‘good things about sobriety’. These good things about sobriety (constructive reasons to change) and the bad things about sobriety (avoidant reasons to maintain the status quo) should also be included in such a balance, especially in light of the hypothesised better quality of motivation that constructive reasons generate over avoidant ones. Figure 3.4 below illustrates how the reasons around drinking and changing can be divided into four categories, with the centre two motivating the person to change their behaviour, and the outer two motivating them to continue their substance use.

<table>
<thead>
<tr>
<th>Drinking</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>Good things (Constructive)</td>
<td>Good things (Constructive)</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>No so good things (Avoidant)</td>
<td>No so good things (Avoidant)</td>
</tr>
</tbody>
</table>
Figure 3.3 – The decisional balance incorporating four groups of reasons. The first and fourth columns contain reasons to continue drinking, namely the good things about drinking (column 1) and the bad things about sobriety (column 4), whereas columns 2 (the bad things about drinking) and 3 (the good things of being sober) contain the reasons for changing.

To summarise about the first dimension, this study proposes that although both constructive and avoidant motivating reasons generate motivation, there may be a difference in the quality and efficacy of motivation generated by either type. This thesis proposes that constructive motivators may be more effective because they are generated by pleasurable emotions, creating a desire for sobriety. This is preferred to avoidant motivating reason that elicit unpleasant emotions as a way of generating motivation, resulting in a need for sobriety. It is proposed that this desire for sobriety resulting from constructive motivators creates better motivation than need for sobriety for the following five reasons:

First, a person who is avoidantly motivated may procrastinate over their recovery. Anecdotal clinical experience suggests that clients who are primarily motivated by avoidant reasons tend to delay readmission when they lapse as well as delay discharge planning and organising post discharge recovery supports when compared to clients who are motivated by constructive reasons.

Second, when there is a difficult task to perform, the process is generally more pleasurable when the person’s focus is on a reward, rather than a threat. Klinger and Cox (1986) found that recovery from alcohol is associated with having emotionally positive alternative goals. For example, if a child is told to clean his room in exchange for a reward, he is likely to do this in a better emotional space than if he is doing it
under the threat of punishment. Furthermore, the child may have more positive
cognitive associations with room cleaning in the first scenario than in the second. This
issue is very important in addiction treatment, which often is a painful process, both
physically and emotionally. Treatment for addiction usually requires multiple
attempts, and if this process is undertaken as a result of avoidant motivating reasons,
the person may be likely to increase the negative cognitive associations they have with
treatment. However, if constructive motivators are used, they may have more positive
associations with treatment, and therefore be more willing to resume treatment should
they lapse back into their addicted behaviour.

Third, when people are motivated by avoidant motivators, their priority is the
cessation of that motivator. In the case of addiction, where the avoidant motivator
could be physical pain of withdrawals, abstinence is just one way to avoid this
motivating reason. Substituting across to another drug or addictive behaviour are
alternative ways to achieving this outcome of avoiding withdrawals from their primary
drug that are commonly reported by clients, as they are usually a lot easier and less
painful than the complete sobriety approach.

A fourth possible difference between avoidant and constructive reason-based
motivation often observed in clients is the amount of effort that they put into recovery
and treatment. When a person is avoidantly motivated they may put less effort into
their recovery, take fewer notes, apply themselves less to their homework and ask
fewer questions. Because the priority for these people is solely to escape from the
unpleasant motivators, simply being present at a rehabilitation programme often
appears to be enough for these motivating reasons to be addressed (by avoidance).
However, for someone who has constructive motivators, focussing upon a goal of
sobriety may make them more motivated to do whatever it takes for them to achieve that particular outcome.

The fifth and final hypothesised difference between these two styles of motivation involves readiness to find an excuse to cease treatment. Clients who are constructively motivated are often observed to be more tolerant of problems, incidents, and obstacles in their treatment than those who are avoidantly motivated. Those who are avoidantly motivated are often observed using those same problems, incidents and obstacles as an excuse to discharge from the programme, and may become quite fixated upon the ‘yes buts’ unless the avoidant motivator is extremely strong, for example, attendance at the programme is required otherwise the person would be incarcerated in prison.

3.2.2 Coerced versus self-directed

Of the common lore around recovery from substance addictions, one of the most well known and quoted suggestions is that “you can’t do it for others, you have to do it for yourself”. However, the reasons behind this are often poorly understood, and this concept reflects the second dimension upon which motivating reasons can be rated, namely whether that reason is coerced or self-directed. In other words, is the trigger for the motivation coming from an external person or entity, such as a partner, child, or court, or is it being triggered internally? Marlowe et al. (1996) conducted a study that looked at whether coercive pressures had an impact upon motivating an individual to enter drug treatment. They found that coercive pressures accounted for approximately one third of the expressed reasons given by clients for entering an outpatient treatment agency, and that legal pressures exert less influence than more informal pressures such as family and finances. However, Marlow goes on to caution that sole reliance upon aversive control is unlikely to bring about or maintain
treatment gains, as it tends to breed resistance, a view supported by Wild (2006) who suggests that a client’s perception of motivating forces being coercive may result in those forces being counterproductive. Hser et al. (1998) also found similar outcomes, reporting that people who were experiencing legal coercion were more likely to enter treatment than those not receiving such incentive. Joe, Simpson and Broome (1998) not only supported this hypothesis, but also found that intrinsically-derived motivation is a greater predictor of engagement and retention in treatment than the type of drug used and the socio-demographic factors they measured.

However, as this thesis goes on to explore, coercive motivators, whilst being prevalent during the early stages of recovery, may not be more effective than self-initiated reasons once the person reaches the maintenance stage of change. Downey, Rosengren and Donovan (2001) found that intrinsically-based motivation was more effective than extrinsically based motivation. One of the possible explanations for this could be that for the coercive factor to create motivation, it has to be active and present. The threat of incarceration is likely to create motivation, however once that threat has been removed, the person will need other sources of motivation, or else they will find their motivation steering back towards drug use again.

A similar principle applies to coercion by family members. If a person’s main motivating reason is because their partner is threatening to leave if they do not stop drinking, then if their partner is away for the weekend, the primary source of that person’s motivation is gone, and unless they have other strong sources of motivation, they are at an increased risk of lapsing. Hence this thesis proposes that although coercive motivators are effective, they are not consistently reliable, rather they require the influence of another person (e.g., a family member) or agent (e.g. a court order) to
maintain that motivation. However, if the motivating reason is internally generated, then it is more likely that it will be constant in its influence.

3.2.3 Internal versus external locus of control

Motivating reasons can also be classified by the degree of control a person has over achieving them (Karniol & Ross, 1996). Take the example of a person who is attending court on a set of drug-related charges that would normally result in a prison term. In the first scenario, the person is bailed to reappear in one month. In the second case, the person is bailed to reappear in one month, but told that if they spend that month in a rehabilitation programme, they will receive a community based order, rather than a period of incarceration.

It is proposed in this multidimensional model that this latter scenario would be more motivating because the person has a greater degree of control over the motivating reason, which, in the case of the above example, is the threat of incarceration. This premise is used in Australia in the state of Victoria’s CREDIT programme (Victorian Department of Human Services, 2006), whereby once a person has pleaded guilty to a drug related offence, the magistrate may postpone sentencing subject to the person being assessed and referred for treatment. The sentence is then based upon the CREDIT officer’s report on how the person has progressed with treatment.

Weiner (1974), whose attribution theory was discussed earlier, also discussed the importance of locus of control as well as the notion of coercive versus self-directed motivation which was described in the previous section. Weiner, like Karniol and Ross (1996), proposed that motivation was generated more effectively where there was a perceived internal locus of control. However, in this thesis, the concept of perceived control is broken into two further dimensions. First, there is the issue of whether the
person truly has objective control over the outcome. For example, someone with certain grandiose personality traits may underestimate the level of support that they will need in recovery, and because they are unlikely to achieve that outcome, may, as a result, become demotivated. The other dimension refers to the person’s confidence that they can achieve an outcome and this dimension will be discussed in section 3.3.2.

3.2.4 Real versus Hypothetical

The fourth objective dimension of motivation rates the motivating reason based upon whether the person has had past experience of that motivator. For example, two people entering detox may each report that they want to quit smoking cannabis so that they can play football. However, only one of them has played football in the past. A problem may arise should the novice player find that he is not very good at football, or does not enjoy the game. Then there is a risk that this motivating reason will no longer function and unless he has other motivating reasons that are still strong, his motivation may turn back towards smoking cannabis. However, in the case of the person with past experience of playing football, he knows his skill level, and knows that he does enjoy it, so there is much less risk of this motivator losing its efficacy. The author is not aware of any specific research that explores this effect, however it is possible that past experience of a motivator may influence its reliability and therefore its efficacy.

3.2.5 Time frame

The fifth dimension of motivation to be rated refers to how far away the goal lies on a continuum of time. Amongst a person’s motivating reasons, are there several staggered goals, or do they cluster in the long-term (e.g., save up and buy a house or get married and have children), or in the short-term, (get back into playing football or having no more hangovers)? This effect was demonstrated by the work of Karniol and Ross (1996) and Klinger and Cox (1986) amongst others. The principle states that the
more distant a reward is from a temporal perspective, the weaker its subjective value will be irrespective of its objective value. For example if you were to offer someone $10 today or $100 tomorrow, most people would wait for the $100 tomorrow. However, if you kept lengthening the delay on the $100, to 1 month, 3 months, 1 year, 5 years, and so on, there gets to be a time for most where the person states they would rather take the $10 today as opposed to waiting for the $100. This is because value is subjectively assessed, not objectively assessed and so if a person’s motivating reasons will take too long to achieve there is a risk that they will not be strong enough to carry them through to early recovery.

There is another issue relevant to motivational potential that arises from this notion of time frame. For motivation to occur, there have to be motivating reasons. However, if these reasons are all short term, for example, to be sober for my birthday next week, to stop waking up feeling sick every morning, and to stop wasting money on booze, then within just a week or two they may have all been achieved. Once that has happened, they may no longer produce sufficient levels of motivation to maintain sobriety. Therefore the current study proposes that a spread of motivating reasons over the next few weeks or months is the preferred choice with at least a couple that are short term. Furthermore, this model proposes that once a reason has been achieved they cease to be as strongly motivating. For example once a person no longer wakes up with hangovers, or their partner is no longer threatening to leave them, then these reasons need to be replaced with new ones so that the person continues to be motivated to maintain sobriety as their initial motivating reasons have now been achieved.
3.3 *Process-based (subjective) dimensions*

The remaining three of the eight dimensions that are used to describe motivating reasons in this study are called process-based or subjective dimensions. These dimensions describe not the motivating reason itself, but rather the way that the person perceives that particular motivating reason, and reasons can be quite fluid along these dimensions. The three proposed process-based dimensions are:

- Importance
- Confidence
- Frequency of thought.

3.3.1 *Importance*

At the start of this chapter it was proposed that motivation is created by triggers. These triggers may be physical sensations, instincts, emotions and thoughts. Therefore it could be proposed that the more of these triggers are occurring at any one time, the stronger the motivation that will be generated as a result. The author noticed, in group therapy sessions focussing upon motivation, that clients reported much stronger motivation when the reasons were things that are important to them, as opposed to things that are important to other people. The clients further reported that the important motivating reasons also elicited a stronger emotional response in them. Therefore, a possible explanation for their stronger motivation is that important reasons also elicit a greater emotional response and therefore more motivation. This has been found by Prochaska et al. (1994) who also observed that the relative importance of motivating reasons was related to the person’s stage of change. Those participants who were in the precontemplation stage of change evaluated the cons of quitting as being higher than the pros, however this effect was reversed amongst those participants in the action stage of change (Prochaska et al., 1994).
This concept has been described by many authors such as West (1989) in his Subjective Expected Utility theory and Vroom (1964) in his Expectancy theory. Both authors highlight the role of the perceived value (importance) of the goal as playing a central role in motivation. This notion is extremely important in the treatment of addiction, as what is important to one person is not necessarily important to another. Warnings on cigarette packets about smoking harming your unborn child are much less likely to elicit a strong emotion reaction in a young single female than they are in a woman who is trying to get pregnant, and therefore, this model would propose that they would be less motivating for the single young female to quit smoking than they would be for the other woman. Likewise, warnings about smoking causing lung cancer may be less motivating in an image-conscious teenager than the appetite-suppressing side effects of smoking as an aid to weight loss.

3.3.2 Confidence

The seventh motivational dimension describes the level of confidence that the person has that they will be able to achieve that particular motivating reason. This does not refer to their confidence that they can achieve abstinence from drugs. Rather it refers to their confidence that, assuming they do abstain from drugs, they will also achieve that underlying reason. The following example illustrates this complex concept. Some commonly reported reasons given to the author by his clients for why they wish to quit drinking are: “I don’t want any more hangovers”, “I want to get back with my wife”, and “I don’t want to feel depressed anymore”. This study proposes that the confidence that a person has that they can achieve these individual reasons behind their desire to change, will have an impact upon the person’s overall motivation towards the goal of sobriety. If the person believes that if they stop drinking then they will be able to get back with their wife, then this is proposed to be a strong motivator.
However, if they feel that, even if they do stop drinking they are still unlikely to repair their marriage, then it is likely to be a weak motivator. This is commonly reported by some depressed clients who say that they want to stop drinking because of their depression, but many also report that they do not believe that their depression will lift, even when sober.

Again, this motivational dimension has been documented in the literature, for example, in Vroom’s Expectancy theory (1964). As well as highlighting the role of subjective value of the motivating reason (Valance/Value), Vroom also proposed that the perceived probability of success (Expectancy) also contributes to the generation of motivation. Klinger and Cox (1986) also discussed the role of the person’s perceived probability of achieving a motivating reason as being related to their probability of success at attaining sobriety. Returning to the example of a person wanting to stop drinking so that they can get back to work, if the person is a young and healthy nurse, then they would be extremely confident that they can return to work because of the large number of nursing jobs available. However, if the person were a 60-year-old unskilled worker with little English, then no matter how much their wanted to work, they may be extremely unlikely to find a job and therefore, in their case, this reason may not provide lasting motivation to stay sober. As a result, this model proposes that a person relying upon reasons that they are confident of achieving will be more strongly motivated to change their addicted behaviour than would a person with low confidence of achieving their motivating reasons.

3.3.3 Frequency of thought

The eighth and final dimension of motivation rates the motivating reason based upon how often the person consciously thinks about it. This study proposes that for a reason to generate motivation, the person must be aware of it and be thinking about it.
This concept is based upon the work of Jon Kabat-Zinn (1991) around the role of mindfulness in cognitive therapy, as well as being the basis of public health campaigns which, rather than being educational in focus, tend to steer towards being repetitive to keep the issue in the mind of the person. However, the issues and motivators have to be changed and rotated because people can become rapidly acclimatised to campaigns and they cease to generate motivation. Therefore, this model hypothesises that the more they think about it, the more motivation that reason will generate, especially if it also creates strong emotional responses. So in assessing the efficacy of a particular motivating reason, a clinician needs to consider how often the person actually thinks about it.

3.4 Different motivators for different stages of change

This thesis recognises the work of Prochaska and DiClemente (1984) who identified that the journey from addiction into sobriety is one that is broken down into several stages. It is possible that at some stages motivators that load more on one end of a particular dimension may be preferable, compared to other stages, where the more effective motivators may be those that load on the other end of those dimensions. For example, for someone in the ‘preparation’ stage of change, motivators that score as being avoidant and short-term on those two particular dimensions, may be the most effective. However, for someone further along in their recovery and now at the ‘maintenance’ stage, the most effective motivators may be ones that, on those same two dimensions, score as being constructive and more medium-term.

The next two chapters describe two studies that start to explore, from within the context of substance addiction and treatment, some of the questions raised by this proposed model of motivation. The first study, described in Chapter Four, looks at whether the motivational dimensions described above can be verified as being valid
and mutually independent constructs, before going onto explore their comparative
efficacy at generating motivation to change substance-using behaviour. Although eight
dimensions have been described in this chapter, the ‘coerced/self-directed’ dimension
was not identified until after the first study, described in Chapter 4 and so was not
included. However, this dimension is included in the second study, which required
participants to attend a one-day workshop focusing upon the eight motivational
dimensions. The second study then explores whether this workshop significantly
increases participants’ motivation to change their addicted substance-using behaviour.
Chapter 4 – Study 1: Motivational dimensions and their relationship to recovery

4.1 Introduction

In exploring the application to the treatment of substance addiction of the multi-dimensional model of motivation described in Chapter 3, there are several key issues that need to be considered. The first is to validate and measure the motivational dimensions. These dimensions have not been assessed or tested before as a group, so there were no pre-existing psychometric tests or guides. Three assessment tools commonly utilised in the study of motivation in addiction behaviour are the URICA (University of Rhode Island Change Assessment, McConaughy, Prochaska & Velicer, 1983), the SOCRATES (Stages Of Change Readiness and Treatment Eagerness Scale, v.8, Miller & Tonigan, 1990) and the RCQ (Readiness to Change Questionnaire, Rollnick et al., 1992). These questionnaires aim to provide a means by which a clinician is able to assess a person’s attitude to their substance use and their readiness to change. The results enable the clinician to classify a person into one of the four established stages of change, derived from Prochaska and Clemente’s Model (1986): precontemplation, contemplation, action and maintenance. However, these tools’ utility has been questioned, with research conducted on the URICA revealing that there are only two subgroups that seem to be identified, those being loosely associated with precontemplators on the one hand, and the remaining stages on the other hand (Carney & Kivlahan, 1995; Willoughby & Edens, 1996).

These tools do not measure the quality of a person’s motivation, rather their purpose is to evaluate the strength and direction of their motivation along with that person’s readiness to change according to Prochaska and DiClemente’s 1986 Stages of Change model. The current study recruited people who were already motivated to
change (the direction of their motivation) and this motivation was sufficiently strong for them to be willing to initiate a change in their substance-using behaviour, such as by attempting to detox from their drug (strength of motivation), therefore they were all already in the ‘Action’ stage of change as described by Prochaska and DiClemente (1986). What this study sought to explore was not whether they were motivated, but rather, what was the quality of that motivation? In other words how do participants’ motivating reasons rate upon the proposed motivational dimensions?

As a result, this research identified the need to develop a new questionnaire that would enable a clinician to elucidate the quality of the client’s motivation. However, because the aim of such a questionnaire was to qualitatively scale the reasons behind a client’s motivation, it could not follow the format of existing motivational measures such as the SOCRATES, URICA, and RCQ. These tools explore the content of a person’s reasons for change, for example: ‘I have already made some changes to my drinking’ and ‘my drinking is causing a lot of harm’ (SOCRATES v8), or ‘I am not the problem one, it doesn’t make sense for me to be here’ and ‘I’m really working hard to change’ (URICA). However these questionnaires do not specifically rate these reasons on the proposed motivational dimensions.

To briefly summarise, these dimensions are those discussed in Chapter 3. The first dimension, constructive vs. avoidant, classifies each motivating reason according to whether it is motivating the person by eliciting negative emotions (avoidant) or positive emotions (constructive). It is hypothesised that whereas avoidant motivators may be more common in early recovery, constructive ones will prove to be more efficacious in the maintenance stage of change.
The second motivational dimension, ‘self versus other initiated’ explores whether the motivating reason is created by the person themself, or requires the presence of other agents such as a partner or a court order. The model suggests that, where a motivating reason is dependent upon the presence of another agent, such as ‘so my children don’t see me drunk’, the motivation created will be dependent upon the presence of that agent. When they are not physically present, the motivation for sobriety may diminish.

The third motivational dimension concerns whether the person’s locus of control is ‘internal or external’ regarding each motivating reason. The model proposes that a person’s motivation will be stronger when they have a high level of control (internal) over achieving the individual motivating reasons.

The fourth dimension of motivation, ‘real versus hypothetical’, assesses motivating reasons based upon whether a person has had previous experience of achieving that particular motivator (real) as opposed to this motivating reason being a new experience (hypothetical). It was argued that motivators that have previously been experienced are likely to produce stronger and more sustained motivation than motivators the person has not experienced.

It is widely recognised that motivation to change is not static, rather it can and does change over time. As a result, the fifth motivational dimension proposes that motivation is most efficacious when the motivating reasons for change are spread out over time. The time it takes for particular motivating reasons to be achieved forms the fifth dimension, called ‘time frame’. In addition, it is recommended that there should be a mixture of short (less than one month), medium (one to three months), and long-term (more than three months) reasons to change an addicted behaviour. This is because it is proposed that motivating reasons, once achieved, become significantly
less efficacious and therefore they need to be replaced with new reasons, if continued motivation for sobriety is to be maintained.

Motivational dimension number six explores how ‘subjectively important’ each reason for change is to that person. The model assumes that because emotions can create motivation, subjectively important motivating reasons will create stronger motivation because they elicit stronger emotions.

The seventh motivational dimension rates each reason to change based upon the person’s ‘confidence’ that they will achieve that particular motivational goal (assuming they maintains sobriety). It was hypothesised that, because people are more readily motivated by goals towards which they have a strong sense of self-efficacy, motivating reasons that score highly on this dimension will provide stronger overall motivation.

How often the person thinks of their particular motivating reasons for change forms the eighth dimension, called ‘frequency’. The thesis proposes that, for motivation to be created, the person has to be consciously mindful of the particular motivating reasons. Therefore it was hypothesised that the more frequently the person thinks of these reasons, the more motivation they will create.

If this study can establish that motivating reasons are quantifiable on each of the aforementioned eight dimensions, then a range of questions present themselves to be empirically tested in future studies. In particular, this relates to whether motivators that load at a particular end of a dimension are more effective at getting clients into treatment. Furthermore, motivators, that are more likely to predict a successful treatment outcome tend to load on which end of the dimensions (if any). Such information would have significant implications for many techniques currently employed in treatment such as Motivational Interviewing (Miller, 1991), as currently
the approach only focusses upon the strength of the person’s motivation to change, and not the quality of the reasons producing that motivation.

4.2 Research Questions

The initial aim of this study was to collect a qualitative data set of clients’ motivating reasons for wanting to change their substance-using behaviour, and then ascertain whether these factors could be classified according to the seven dimensions discussed above: constructive/avoidant; self/other; internal/external; real/hypothetical; time frame; subjective importance; subjective confidence; and frequency.

The next question asked whether the reasons that motivate people to change addicted substance-using behaviour loaded on one particular end on each of these seven dimensions or, were they normally distributed? Such information may assist clinicians in assessing whether particular reasons will be more or less motivating, based upon how they load on each dimension.

The third question looked at the content of the motivating reason and asked what types of reasons participants gave for wanting to change, in terms of the category that the reason falls into, (for example, family, relationships, health, money, legal problems).

Fourth, in order to begin to ascertain which types of motivating reason are more or less effective at helping a person maintain a change, it was asked whether there was a relationship between a participant being able to maintain sobriety for more than a week post discharge, and the score of their motivating reasons on these dimensions.

Finally, to begin to explore the impact of certain demographic factors upon this particular population’s ability to change, it was asked whether there was a relationship
between how long a person remained abstinent and the demographic variables of employment status, forensic history, relationship status and housing status.

4.3 Method

4.3.1 Participants

The study recruited 60 participants. The first six were interviewed as part of a pilot test-run of the interview tool, and their motivating reasons were included in the data used to answer the first two research questions. The remaining 54 eligible participants (males=35, females=19, $M$ age = 31.4 years, range from 21 to 50) were followed up post-treatment, their data being used to answer all four research questions. The participants were drawn from clients who presented to a withdrawal facility in Melbourne, Australia. The gender disparity does not reflect differences between prevalence of addiction, rather it was representative of the gender disparity of clients attending the treatment centre. In terms of primary drug use, 25 (46%) identified alcohol, 15 (28%) identified cannabis and 14 (26%) identified heroin.

4.3.1.1 Recruitment

The participants chosen were substance-addicted persons presenting to a drug and alcohol addiction treatment centre in Melbourne, Australia, requesting detoxification. They could be described as already being in the ‘Action’ stage of Prochaska and DiClemente’s (1983) Stages of Change model, which is defined as being when a person has now commenced taking action to change their substance-using behaviour, which in this case, means that they have decided to admit themselves for detoxification.

Clients of the service were screened by telephone as part of the usual triage process. They were then given a comprehensive face-to-face assessment in accordance with the service’s standard admission procedure. This assessment already included all
data required to establish whether they met the eligibility criteria for the study. Clients deemed eligible were informed that the study was occurring, what it entailed, and had the plain language statement read to them (appendix A). Clients were advised that if they did not consent to participate, then this in no way impacted upon either their admission to the treatment service, or the treatment that they would receive within the programme, or future treatment from the service. The converse also applied, participants who did enrol in the study did not receive any preferential or additional treatment. They were then offered a place in the study and those who consented were enrolled as participants, signing the consent form (appendix B).

4.3.1.2 Inclusion Criteria

The participants were required to be 21 years of age and over so as to control for emotional and neurological developmental issues. It was also decided to exclude participants over the age of 50 to control for significantly increasing likelihood of alcohol-related brain injury (ARBI) which impacts upon a range of cognitive processes. Participants must have had daily use of alcohol, cannabis, or heroin over the past three months and have had their substance use diagnosed by their medical practitioner as meeting DSM IV criteria for either 303.90 – Alcohol Dependence, and/or 304.90 – Cannabis Dependence and/or 304.00 – Opioid Dependence.

All participants were required to have the goal of abstinence rather than a goal of respite from, or reduction in their substance use. They were also required to be in the ‘action’ stage of change, as described in Prochaska and DiClemente’s Stages of Change (1983). The rationale for this being that this model is concerned with motivation to change behaviours, rather than motivation for having a break from behaviour. Participants must also have been able to describe three reasons why they
were wanting to stop their drug use. This was to ensure that they were able to provide sufficient data for inclusion in the study.

4.3.1.3 Exclusion Criteria

Addiction treatment and recovery is notoriously complex with a large range of variables playing a role in successful outcomes. These include the social environment and comorbid psychopathology. In an attempt to control for some of these variables, the following exclusions were incorporated into the eligibility criteria.

Persons with long-term (greater than three months) daily benzodiazepine use were excluded from the study, because the physiological withdrawal from benzodiazepines has a longer withdrawal syndrome (several weeks or months) than drugs such as heroin, cannabis, alcohol and nicotine, for which the majority of the physiological withdrawal syndrome is complete in 4-6 days. Because benzodiazepine withdrawal can be protracted, this may make behaviour change harder to maintain, possibly overshadowing any influence the person’s motivation may have on their desired outcome.

In addition, because of the risk of alcohol-related acquired brain injury and the influence that this may have on a person’s ability to make any behaviour changes, persons with a period of chronic alcohol dependence exceeding 10 years were also excluded. Clients with a comorbid chronic medical condition such as chronic pain, where at least a part of their substance use may be accounted for as being a form of self-medication, were also excluded. This is because it was felt that the ongoing physical need for the drug, even after completing withdrawal, might have unduly influenced the outcome.

Persons with a current and acute psychotic, anxiety, or major mood disorder were excluded because of the extra influence these disorders may have on motivation.
The same exclusion applied to persons with a reliably diagnosed borderline or antisocial personality disorder. It would appear that many people demonstrate borderline or antisocial behaviours in response to developing an addiction and as a result have the potential to be misdiagnosed if they are not honest about their addiction with the diagnosing clinician. Furthermore, according to the DSM IV (APA, 1994), in addition to current antisocial behaviours, there must also be evidence of conduct disorder prior to the age of 15 in order to validate a diagnosis of antisocial personality disorder (APA, 1994).

Persons with impending court cases for whom incarceration was a probable outcome were excluded for two reasons. First of all, the threat of imprisonment strongly influences a person’s desire to use drugs (the stress of the ordeal may increase their desire to use). Second, for those who do become incarcerated, their use of drugs in prison may be restricted by external factors, rather than internal ones, and therefore, for those who attain and maintain abstinence in prison, it would not be possible to determine whether this was more influenced by their motivating reasons, or by the restrictive environment. Persons who were currently homeless as well as those who did not have at least two follow up contacts, or who were unwilling to consent to follow up contacts being used, were also excluded due to the difficulty in tracing them for follow up interviews.

The final group excluded were persons who migrated to Australia after their sixth birthday. There was a possibility that cultural factors could influence outcomes in this study because, for example, in the clinical experience of the author, family opinion and honour play a much stronger influence in Vietnamese culture, than in Anglo-Australian culture. Therefore in the case of such participants, looking at the dimension of whether their motivation is ‘self’ or ‘other’ initiated, the reverse effect to
that hypothesised in this thesis may in fact occur, namely that family coercion would be a positive predictor of maintaining abstinence. However, such a study is beyond the scope of this particular thesis.

Of the 280 clients screened at first contact with the treatment service, 54 met the recruitment criteria. Table 2 lists the reasons why the other 226 were not recruited.

Table 2  The reasons why participants were not recruited.

<table>
<thead>
<tr>
<th>Reason for not being included</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comorbid or primary benzodiazepine dependence</td>
<td>37</td>
</tr>
<tr>
<td>Homeless</td>
<td>30</td>
</tr>
<tr>
<td>Migrated after 6(^{th}) Birthday</td>
<td>24</td>
</tr>
<tr>
<td>Client too intoxicated to be interviewed</td>
<td>20</td>
</tr>
<tr>
<td>Currently psychiatrically symptomatic</td>
<td>19</td>
</tr>
<tr>
<td>Did not want a significant change in their behaviour</td>
<td>18</td>
</tr>
<tr>
<td>Client in crisis so recruitment interview is not appropriate</td>
<td>15</td>
</tr>
<tr>
<td>Chronic medical condition</td>
<td>14</td>
</tr>
<tr>
<td>Court issues resulting in likely incarceration</td>
<td>13</td>
</tr>
<tr>
<td>Pre-addiction personality disorder</td>
<td>9</td>
</tr>
<tr>
<td>Evidence of ABI – alcohol induced or other</td>
<td>7</td>
</tr>
<tr>
<td>Did not have time to participate</td>
<td>6</td>
</tr>
<tr>
<td>Unable to think up three reasons for wanting to change</td>
<td>5</td>
</tr>
<tr>
<td>No follow up contacts</td>
<td>5</td>
</tr>
<tr>
<td>Intellectual disability</td>
<td>2</td>
</tr>
<tr>
<td>Eligible but did not wish to take part</td>
<td>2</td>
</tr>
</tbody>
</table>

N=226

This high exclusion rate (80% of all participants screened) was not regarded as a concern because this study recognised that addiction is highly complex and there are a wide range of variables that play a role in recovery, not just the motivational variables being tested here. It was not proposed that motivational variables are the sole or even primary factor in influencing treatment outcomes, rather they are just one of many. However, to assess whether they do have any influence, other variables need to
be controlled, even if this does result in excluding the majority of potential participants.

4.3.2 Instruments

There were two instruments used in the study. The first was the hospital’s own screening tool which included most of the data required to screen participants’ suitability for the study.

The second tool was an assessment questionnaire called the MuDMAT (Multi-Dimensional Motivation Assessment Tool – see Appendix C) that was developed specifically for clinical utility rather than psychometric validity. Determining the psychometric properties of this tool with a large sample was beyond the scope of this thesis.

This study required participants to elucidate their primary motivating reasons, as they perceived them, and then assess these on each of the hypothesised motivational dimensions. Therefore an open ended format was chosen, as this permitted the assessment of not only predetermined avoidant motivators as identified by the URICA or SOCRATES, but also enabled these motivating reasons to be rated on a five point scale on each of the seven motivational dimensions, with the exception of the constructive vs. avoidant dimension, which was rated on a 3 point scale. This is because pilot-testing had found that participants struggled with trying to rate this dimension in terms of 5 points.

The MuDMAT also included a range of demographic items in an attempt to evaluate some other possible influences on participants’ ability to recover. These were age, employment and housing status, including whether anyone else in the household uses the same or other drugs, the nature of their accommodation, for example, family, renting, or boarding, and the stability of their accommodation, that is how long they
are able to or are planning on remaining there. The MuDMAT also asked about the person’s relationship status and whether their partner used drugs, and if so, were the drugs the same as the participant uses, or different.

The interviewer then asked the participant what their three primary reasons were for wanting to change. Participants were encouraged to give concise answers. These reasons were then scaled on each of the seven dimensions according to the MuDMAT.

4.3.3 Procedure

The clients were screened for eligibility as part of the programme’s normal assessment process, approximately one week prior to commencing withdrawal. Those eligible for the study were then asked if they consent to providing two follow-up persons who would be likely to be aware of the participant’s substance-using status (i.e., whether they were still sober or had relapsed). Those who had two follow-up contacts and consented to the researcher calling them then proceeded onto a full assessment prior to being admitted to the withdrawal unit. They had the project explained to them, were provided with a plain language statement of the study’s aims and procedures. Those who consented were then included in the study.

On completion of a full clinical assessment the researcher presented MuDMAT, collecting the demographic data first. The researcher then progressed onto the motivational part of the questionnaire and asked participants the following question, making every attempt to remain neutral and unbiased in his style to reduce the possibility of leading the participant:

“Could you please tell me what are the three main reasons for you wanting to change your drug/alcohol use?”
If the answer was very general, for example “for my health / because of my kids / because I was told to” the researcher then asked them: “what in particular about your health/kids/being told to?”

If the answer was lengthy, then the researcher asked them “so how would you summarise that in a short sentence?”

If the answer had more than three reasons included in it, the researcher asked “which of the things you just mentioned do you think about the most?”

The researcher then recorded the three responses verbatim.

The researcher then administered questions A to G from the study one questionnaire for each of the three responses and recorded the participant’s response to each on a five-point scale for the first six items, with the seventh question utilising a three point scale for the reasons described above.

An example of such an interview was:

Q: Could you please tell me what are the three main reasons for you wanting to change your drug use?
A: I just hate drugs now.
Q: What in particular is motivating you?
A: The cost, ‘hanging out’, what it’s doing to my relationship, hassle from the cops.
Q: Which of those things do you think about the most?
A: Probably ‘hanging out’ (withdrawal) … I hate it. The researcher then writes down ‘I hate hanging out’
Q: What would be the second main reason why you want to change your use?
A: Definitely my relationship.
Q: What in particular about your relationship?
A: It’s really pissing my girlfriend off now. She’s threatening to leave me if I don’t.

The researcher writes down ‘my girlfriend is threatening to leave me if I don’t quit’

Q: What would be the third main reason?

A: I’m sick of having no money in my pocket. The researcher writes down ‘I’m sick of having no money in my pocket’

The researcher would then ask the client to rate each of these three reasons on the dimensional scales, following the format of the MuDMAT in appendix C. The participant was then thanked for their time and reminded that the researcher would contact them one week following discharge. Most participants would then be admitted to the unit between one and two weeks from assessment. Participants were monitored during their six-day admission, and those who self-discharged before completing their withdrawal were exited from the study.

The remainder were then followed up with a phone call seven days after their discharge. The telephone call asked them about their substance use during the previous week.

Those participants who met the criteria to remain in the study (outlined below) were congratulated and thanked for their time, and were asked if they were willing to remain in the study for the researcher to call them again in three weeks time (one month post-discharge). All consented to this.

Those participants who were not permitted to remain in the study because they had relapsed were congratulated for having successfully detoxed. They were further advised that lapsing was quite normal, and that recovery from addiction was a skill
which often took several admissions to master. In closing, they were strongly encouraged to check back in for another admission as soon as possible.

This same process was repeated one month post discharge, and then for those meeting the criteria for continuing the study, a final phone call was made three months post discharge. All participants who were contacted at this time were thanked one final time for their help and wished well in their future. Those needing further referrals for treatment and care were provided with that information or booked in for further appointments at the hospital.

The criteria for remaining in the study based upon lapsing or relapsing were as follows. At the first follow-up, if the participant self-reported that they had lapsed into their addicted substance-using behaviour for two of the past seven days they were eliminated from the study. At the second follow-up, if the participant self-reported that they had lapsed into their addicted behaviour for two of the past seven days, or more than four times in the previous month they were eliminated from the study. At the third and final follow up, if the participant self-reported that they had lapsed into their addicted behaviour for two of the past seven days, or more than four times in the previous month they were eliminated from the study.

4.4 Results

A total of 200 reasons were initially collected from the 54 study participants and 9 from the pre-study trials. The results were analysed using SPSS v11.5 for Microsoft Windows and were screened for outliers. Motivating reasons were scored on each of the seven proposed motivational dimensions. The 54 study participants were followed up for three months or up until such a time as they lapsed. Demographic data for the 54 participants is provided in Table 3 below. Contact was lost with two participants at the one-month follow up and a further two at the three month follow up.
These participants were included in the results data and assumed to have lapsed when contact was lost, based upon reports given by their follow-up contacts.

4.4.1 Initial Study Aim

The initial aim of this study was to collect a large set of motivational reasons for wanting to change substance using behaviour and ascertain whether these factors could be classified according to the seven dimensions discussed above: constructive/avoidant; importance; confidence; frequency; time frame; real/hypothetical; and locus of control.

This aim was successfully achieved with participants and the researcher being able to score each motivating reason according to the seven dimensions. A correlation analysis of the seven dimensions showed no significant relationships between any of the seven dimensions indicating that they may be considered as discrete variables.
Table 3  Summary of Demographic data for the 54 participants included in the study.

<table>
<thead>
<tr>
<th>Demographic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>35</td>
<td>65</td>
</tr>
<tr>
<td>F</td>
<td>19</td>
<td>35</td>
</tr>
<tr>
<td><strong>Primary Drug</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>24</td>
<td>44</td>
</tr>
<tr>
<td>Cannabis</td>
<td>15</td>
<td>28</td>
</tr>
<tr>
<td>Heroin</td>
<td>15</td>
<td>28</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casual</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>Full Time</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>Part Time</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Unemployed</td>
<td>32</td>
<td>60</td>
</tr>
<tr>
<td><strong>Forensic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>31</td>
<td>58</td>
</tr>
<tr>
<td>Past only</td>
<td>15</td>
<td>28</td>
</tr>
<tr>
<td>Bail</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>On Order</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td><strong>Relationships</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>26</td>
<td>48</td>
</tr>
<tr>
<td>Yes</td>
<td>28</td>
<td>52</td>
</tr>
<tr>
<td>Yes, partner uses drugs</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>Yes, lives with partner</td>
<td>15</td>
<td>28</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boarding</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>With family</td>
<td>19</td>
<td>35</td>
</tr>
<tr>
<td>Homeless</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Owned / buying</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Renting</td>
<td>21</td>
<td>39</td>
</tr>
<tr>
<td><strong>Housing stability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than one week</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Less than one month</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Less than 3 months</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>More than 3 months</td>
<td>46</td>
<td>86</td>
</tr>
</tbody>
</table>

N=54

4.4.2 Research Question One

The first research question explored whether the reasons that motivate people to change addicted substance-using behaviour tended to load on one end of any of the dimensions. The findings are summarised in Table 4 below, and it was found that there was an unequal frequency of responses on five of the seven dimensions. In the
‘confidence’ dimension, motivating reasons that participants were more confident in achieving accounted for 65% of all reasons, with only 12.5% being reasons that they were not confident in achieving. Motivating reasons were also rated, as expected, towards those that were important to the participants, with an overwhelming 94.5% rating these reasons as being important, and 1% as being unimportant.

Table 4  How the motivation reasons rated on each of the dimensions

<table>
<thead>
<tr>
<th>Motivational Dimension</th>
<th>M</th>
<th>SD</th>
<th>Frequency of Scores (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Confidence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1-low, though 5 – high)</td>
<td>3.82</td>
<td>1.14</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Importance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1-low, though 5 – high)</td>
<td>4.79</td>
<td>0.57</td>
<td>0</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1-frequent, though 5 – rarely)</td>
<td>4.14</td>
<td>1.13</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>External / Internal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.27</td>
<td>.93</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Hypothetical/ Real</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.10</td>
<td>1.32</td>
<td>28.</td>
</tr>
<tr>
<td><strong>Short / Med / Long term</strong></td>
<td>2.95</td>
<td>1.26</td>
<td>26.</td>
</tr>
<tr>
<td><strong>Avoidant / Constructive</strong></td>
<td>1.71</td>
<td>0.95</td>
<td>64.</td>
</tr>
</tbody>
</table>

N=200

The ‘frequency’ dimension, representing how often the person thinks about the particular reason, also showed an uneven frequency of responses, with 74.5% of reasons being thought about daily or more than once a day, and only 9% of reasons being thought about once a week or less.

The ‘internal/external locus of control’ dimension had a greater frequency of responses in favour of ‘internal’ motivators. This was stronger than for the ‘confidence’ dimension, but less than the ‘importance’ and ‘frequency’ dimensions.
The fifth and final dimension to show a frequency loading was the Avoidant/Constructive dimension. Unlike the others, this was graded on a 3 point nominal scale, with 1 representing more avoidant, and 3 representing more constructive. Of the motivating reasons given by participants, 64.5% were classified as being avoidant, and 35% were constructive. The remaining dimensions showed a normal distribution of responses.

4.4.3 Research Question Two

The next research question used a content analysis to explore the types of reasons participants gave for wanting to change and these are presented with examples in Table 5. The reasons were rated by the researcher according to the category that the reason fell into, such as ‘family’, ‘relationships’, ‘health’, ‘money’, and ‘legal problems’ with examples of each given in Table 5. The content of the motivating reasons was categorised, with 29.5% involving interpersonal relationships, and of these 10% were reasons involving their partner, 7.5% were reasons based upon their relationship with their children and the remaining 12% involved other types of interpersonal relationships.

The next largest category was the reasons relating to the person’s health (19.5%). Of these, 15.5% were related to the undesirable effects of the substance, with the remaining 4% involving reasons such as general health improvement or concern about a specific medical condition not directly related to their substance use.
Financial issues and psychological issues both included the third largest number of motivating reasons, each accounting for 13% of the total. They were followed by general restriction on their lifestyle resulting from their addiction (9%), career issues (8%). The remaining categories, legal concerns, recreation, and ‘other’ accounted for the remaining 8% of motivating reasons.

4.4.4 Research Question Three

The third question assessed in the study was whether participants who were able to maintain sobriety for more than a week post discharge were different on their average score for each of the seven dimensions compared to those that were unable to maintain sobriety for more than a week.

The treatment outcomes of the 54 participants were as follows. 24.1% failed to complete their 7-day withdrawal; 42.5% relapsed within a week of discharge; 11.1% relapsed between 1 week and 1 month; and 5.6% relapsed between 1 month and 3 months post-discharge. 11.1% reported that they had continued to maintain sobriety at their final interview 3 months after they were discharged.

Participants were divided into two groups: those who did not complete the withdrawal from their drug and those who relapsed within a week of discharge (n=36), and those that remained abstinent for a week or more (n=18). A t-test was applied to these groups’ scores on each of the seven dimensions however there was no significant relationship found between any of the seven dimensions of motivation and the length of time they remained abstinent.

4.4.5 Research Question Four

The fourth research question asked whether there was an association between the length of time a person remained abstinent and key independent demographic
variables employment status, forensic history, relationship status, whether their partner also uses drugs, employment, primary drug type and housing status.
Table 5  Qualitative breakdown of the motivating reasons provided by participants

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>%</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relationships</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner</td>
<td>20</td>
<td>10.0</td>
<td>A better relationship with my partner</td>
</tr>
<tr>
<td>Children</td>
<td>15</td>
<td>7.5</td>
<td>Don’t want the kids to end up the same</td>
</tr>
<tr>
<td>Other family</td>
<td>12</td>
<td>6.0</td>
<td>To be able to do things with my sister</td>
</tr>
<tr>
<td>Parents</td>
<td>6</td>
<td>3.0</td>
<td>So my mum won’t find out</td>
</tr>
<tr>
<td>Start a relationship</td>
<td>4</td>
<td>2.0</td>
<td>I want to settle down and get married</td>
</tr>
<tr>
<td>Other relationships</td>
<td>1</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>General family</td>
<td>1</td>
<td>0.5</td>
<td>To get my family back together</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>59</td>
<td>29.5</td>
<td></td>
</tr>
<tr>
<td><strong>Health</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effect of substance</td>
<td>31</td>
<td>15.5</td>
<td>It’s making me sick all the time</td>
</tr>
<tr>
<td>General Improvement</td>
<td>6</td>
<td>3.0</td>
<td>To feel and look better.</td>
</tr>
<tr>
<td>Specific Illness</td>
<td>2</td>
<td>1.0</td>
<td>Can’t drink any more because of my diabetes</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>39</td>
<td>19.5</td>
<td></td>
</tr>
<tr>
<td><strong>Psychological</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effect of substance</td>
<td>23</td>
<td>11.5</td>
<td>To stop being so irrational and moody</td>
</tr>
<tr>
<td>General improvement</td>
<td>3</td>
<td>1.5</td>
<td>To learn to manage my life and emotions</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>26</td>
<td>13.0</td>
<td></td>
</tr>
<tr>
<td><strong>Financial</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase cash-flow</td>
<td>19</td>
<td>9.5</td>
<td>Can’t pay my debts and fines off</td>
</tr>
<tr>
<td>Start saving</td>
<td>7</td>
<td>3.5</td>
<td>To save some money</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>26</td>
<td>13.0</td>
<td></td>
</tr>
<tr>
<td><strong>Career/Employment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get a (new) job</td>
<td>10</td>
<td>5.0</td>
<td>So I will be able to hold down a job</td>
</tr>
<tr>
<td>Maintain/improve job</td>
<td>6</td>
<td>3.0</td>
<td>To stop being late in to work</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
<td>8.0</td>
<td></td>
</tr>
<tr>
<td><strong>Recreation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other pastime</td>
<td>2</td>
<td>1.0</td>
<td>So I can ride my horses</td>
</tr>
<tr>
<td>Holiday</td>
<td>3</td>
<td>1.5</td>
<td>More travelling in WA</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td><strong>Legal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>2</td>
<td>1.0</td>
<td>So I don’t get myself locked up</td>
</tr>
<tr>
<td>Specific</td>
<td>2</td>
<td>1.0</td>
<td>Show the court that I’m making an effort to avoid jail</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling restricted by drugs</td>
<td>18</td>
<td>9.0</td>
<td>So I am not controlled by the alcohol</td>
</tr>
<tr>
<td>Housing</td>
<td>2</td>
<td>1.0</td>
<td>To move out of my parents’ place</td>
</tr>
<tr>
<td>Drivers Licence</td>
<td>1</td>
<td>0.5</td>
<td>Get a driver’s license</td>
</tr>
<tr>
<td>Increased cigarettes</td>
<td>1</td>
<td>0.5</td>
<td>Makes me smoke too many cigarettes</td>
</tr>
<tr>
<td>Driving</td>
<td>1</td>
<td>0.5</td>
<td>To stop risk-taking like drink driving</td>
</tr>
<tr>
<td>Drug use escalates</td>
<td>1</td>
<td>0.5</td>
<td>I don’t want to get onto any heavier drugs.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>24</td>
<td>12.0</td>
<td></td>
</tr>
</tbody>
</table>

N=200 reasons
Because of the small sample, it was not possible for Chi-Squared tests to be applied for most of the demographic variables and the time the participants remained abstinent, due to one or more cells having too low an expected count. However, for four demographic variables, namely gender, relationship status, and primary drug, there were sufficient numbers for a chi-square test to be performed. This analysis showed no significant association for gender or relationship status, however for primary drug there was a significant effect ($\chi^2 = 6.7$, sig=0.034).

The analysis showed that 54.2% of participants whose primary drug was alcohol relapsed within one week or failed to complete detox, and 60% of cannabis users also relapsed within one week or failed to complete detox. However, of the group that nominated heroin as their primary drug, a significantly higher proportion of participants, 93.3%, either failed to complete detox or relapsed within one week.

4.5 Discussion

4.5.1 Interpretation of the results

4.5.1.1 Initial Study aim

The initial study aim was to collect from the participants a large set of motivating reasons for their wanting to change their substance-using behaviour and ascertain whether these factors could be rated on the seven dimensions discussed above: constructive/avoidant; importance; confidence; frequency; time frame; real/hypothetical; and internal/external locus of control.

That this aim was achieved provides some validation of the existence of these seven dimensions. Given the fact that most have been directly or indirectly alluded to in the literature, this multidimensional model of motivation could prove to be a helpful step in the understanding of human motivation and change. Furthermore, it offers a
range of areas to explore to help understand why, in addiction, motivation to change is such a complex issue.

4.5.1.2 Research Question One

The first research question explored whether the reasons that motivate people to change addicted substance-using behaviour tend to load towards one pole or the other on any of the dimensions. For example, on the constructive vs. avoidant dimension, do the reasons people give for wanting to detox more frequently load on one end or the other or neither? A significant finding here would suggest that motivating reasons that rate on one end of a particular dimension may be more effective at eliciting motivation to engage in treatment.

The study had a small sample, being only 54 participants, nonetheless it found that motivating reasons were rated disproportionately on five of the seven dimensions and this showed that there is a bias in the types of motivating reasons that bring a person to treatment when rated on these dimensions. All three subjective dimensions had such loadings, in favour of ‘strongly confident’ on the confidence dimension; ‘strongly important’ on the importance dimension; and ‘once a day’ or ‘more than once a day’ on the frequency of thought dimension. These results are as would be expected; motivators that are important to the person, that the person is confident in achieving, and that they think of regularly are preferable when it comes to generating motivation to change.

The motivating reasons assessed in this study also showed disproportionate loadings on two of the four objective dimensions included in the study (the dimension of self/other initiated was not included in this initial study): ‘internal’ motivators were more prevalent than ‘external’ motivators, a finding that supported an earlier finding by Downey, Rosengren and Donovan (2001) that intrinsic motivation was more
effective at generating motivation to change than extrinsically based motivation. The other dimension that showed an imbalanced loading found that ‘avoidant’ motivators were more prevalent than ‘constructive’ motivators. The two dimensions that did not show any imbalance in distribution of motivating reasons were real/hypothetical (whether the person has past experience of achieving this particular motivating reason), and time frame (how long it would take the motivator to be achieved) although in the case of the latter, almost two thirds of motivating reasons were estimated by the participants to be achievable within three months. The finding that avoidant motivators are more prevalent may seem initially to be at odds with one of the core hypotheses of the model tested in this thesis: the preference for constructive motivators over avoidant motivators. This is further surprising as it initially seems to be at odds with Prochaska’s (1994) finding that constructive motivators seem to peak coming up to the action stage of change, and begin to diminish thereafter. However, the model described in this thesis does suggest that the type of motivating reason that is most effective may be different from one stage of change to another and there are several possible reasons for this preference for avoidant motivators at the ‘action’ stage of change.

First, when looking at an addict’s life objectively, in many cases there are more potential avoidant motivators for them to choose from than potential constructive ones. A heroin-addicted person enters the painful state of withdrawal three or four times per day. This is a powerful avoidant motivator. Many will have significant social problems, more avoidant motivators; many more will have legal issues, or problems with child protective services. The constructive motivators such as saving up for a holiday, getting fit again, and getting back to work, may be a long way down on their list of priorities. So the reliance on this dimension of avoidant as opposed to
constructive motivators may simply reflect that, in these people’s lives, they are not choosing motivators out of a pool containing equal numbers of both avoidant, and constructive motivators. Rather, their pool of motivators may be predominantly avoidant thereby influencing the odds of which type of motivator they will end up selecting when asked to nominate three.

Repression and/or denial with regards to substance use are states commonly encountered when working with addicted individuals (Marsh & Dale, 2006). Enabling a person to lift these states is central to positive treatment outcomes in the area of addiction, and they offer a second possible explanation for this result. Clients of addiction treatment services who appear to be in repression, that is they are exhibiting behaviour characteristic of addiction yet are not able to accept that they do have an addiction, sometimes have elaborate and highly resilient defence mechanisms. Using nurturing and gentle approaches to work through these defence mechanisms may take a considerable amount of time while the therapist builds rapport and slowly earns the client’s trust. However, clinical evidence suggests that very strong avoidant motivators such as a health scare, their partner moving out, or a drink-driving charge, may result in these defences being more readily dropped, resulting in motivation to change.

To self-refer for treatment usually means that they accept that there will be approximately six days of withdrawing from their substance, a process that is both psychologically distressing and physically painful even with symptomatic medications. Therefore, a third possible explanation for the loading upon avoidant motivators may be because a very strong motivator would be needed for someone to be prepared to face this ordeal. However, although there are many possible types of both constructive and avoidant motivator, painful stimuli have the potential to be
stronger than pleasant stimuli. There are very few potential constructive motivators that can elicit the same degree of motivation as extreme pain or fear.

A fourth possible reason comes from the author’s experience of motivation-focussed group-work with substance-addicted persons. When discussing the nature of avoidant and constructive motivation with clients, the author often asks the participants which type they usually use to motivate themselves in their day-to-day lives. Usually, approximately half of the group report that they typically use avoidant motivators for their everyday chores, suggesting that this may be their preferred motivational style in all areas of their life, not just in relation to their addicted behaviour. These clients often report that their family of origin used more avoidant motivators than constructive ones; that is to say, the client’s childhood behaviour was moderated more by threats, criticism and punishment than by praise, approval and encouragement. This may have set up a global cognitive style of self-motivation based upon avoidant motivators rather than constructive ones.

A final possible reason for the predominance of avoidant motivators as opposed to constructive ones could be a result of a possible phenomenon that people may be more attuned to certain types of emotions when they are already in similar emotional states. For example, when a client is depressed, it could be proposed that they are more readily able to identify with other negative emotional states and life events than positive ones. Powerful motivators usually have a strong emotional component, and so it follows that if the addicted person is predominantly in a negative emotional state, he or she is more likely to respond to avoidant motivators than constructive ones because they may feel the negative emotions associated with the avoidant motivator more strongly than the positive emotions associated with the constructive motivating reason.
Irrespective of what is the underlying reason for the dominance of avoidant over constructive motivators amongst people entering into a treatment programme, the finding that pain and suffering are the most common reason for people to seek help from substance addiction has been long documented. The ‘Big Book’ of Alcoholics Anonymous (Anonymous, 1939) cites numerous examples of stories describing how, in many cases, the alcoholic needs to reach their own rock bottom. It is only from such a place of such strong avoidant motivators that the person may be willing to sufficiently surrender and have the willingness and thoroughness to face the process of recovery.

Although more avoidant motivators were mentioned amongst this sample, this does not demonstrate a direct causal relationship between avoidant motivators and engaging in treatment, rather it could simple reflect the balance of avoidant and constructive motivators amongst people with addictions in all stages of change, including precontemplators. Therefore, these results do not discount the possibility that constructive motivators may be more effective motivators once a person is through the action stage of change and are in the maintenance stage.

4.5.1.3 Research question 2

The second research question explored the types of reasons participants give for wanting to change, according to the category that the reason falls into, for example family, relationships, health, money, legal problems. No analysis relating the types of reason to outcomes was conducted because individual participants would typically give a mixture of reasons. The content of the motivating reasons was categorised, with the largest number involving interpersonal relationships, followed by health, money and mental health with legal issues being one of the smallest (see Table 3). This revealed similar categories to those found by Downey, Rosengren and Donovan
(2001) in their analysis of reasons to change from a similar cohort, whose study went on to explore the difference in the level of motivation that each type of reason generated. They found that reasons relating to self-concept issues provided the strongest motivation, health concerns providing a moderate amount, and legal and social reasons provided the lowest.

Before drawing any conclusions from these data is it important to be mindful of the exclusion criteria, as only one fifth of all those screened for the study were found to be eligible for inclusion. Therefore, they may not be truly representative of the types of reasons that people give when presenting for treatment. Furthermore, the exclusion criteria specifically and deliberately screened out certain populations and groups, for example, one criterion required that the person should not have court matters from which there was a significant chance of being incarcerated, thereby excluding 13 people from the study.

However, if the findings can be applied the types of things that motivate people to change an addicted behaviour, then this would have strong implications, especially for public health campaigns. Recent Victorian anti-smoking campaigns (Victorian Government Department of Human Services, 2004), target precontemplators and contemplators, focussing primarily upon the health consequences of smoking with the slogan ‘every cigarette is doing you damage’. However, a more diverse approach may be necessary as health issues only accounted for a fifth of all the motivating reasons. Anti-party drugs campaigns have also been narrow in their scope, again focussing upon health consequences (avoidant motivators) rather than other types of reasons for not using, including constructive motivators. Anti-gambling campaigns have also had a restricted focus, primarily targetting family and financial reasons. A more balanced campaign seems to be the 2005 Victorian anti-cannabis television commercials which
showed a range of potential problems that can arise from cannabis use, not just health, but also social, recreational and work. Further study would be necessary with multiple cohorts and no exclusion criteria to truly assess the types of reasons that are motivating people who present for treatment.

4.5.1.4 Research Question Three

The third research question examined whether there was a difference between the participants’ ability able to maintain sobriety for more than a week post discharge and the average score for each of the seven dimensions.

A quarter of the 54 participants failed to complete their 7-day withdrawal, with nearly half relapsing within a week of discharge, and only 1 in 10 was abstinent 3 months later. This figure already takes into account that more complex clients where excluded from the study, thereby suggesting that in reality, the abstinence rate across all clients of that withdrawal unit is considerably lower still. Whilst anecdotally these outcomes are not particularly surprising for a residential withdrawal-only programme, again, the fact that 80% of those screened for the study were deemed ineligible also influences interpretation of this data. Those excluded included some of the most complex clients, those with: comorbid psychiatric or medical illness, homelessness, brain injury or benzodiazepine dependence. These groups accounted for more than 42% of all those screened for the study, and were excluded because of the way that these conditions and states make recovery from addiction all the more complex.

In their study, Klinger and Cox (1986) had found that there was a negative correlation between successful treatment outcomes and the number of avoidant motivators, however their finding was not supported in this study. However, the sample in this study was small.
It was observed though, during discussion with participants at follow up that their motivating reasons were shifting and fluid, that is to say, that their reasons often would change from day to day based upon the current issues and priorities in their lives. This would suggest that it might not be possible to establish whether certain types of motivation at the commencement of treatment are more effective in the long term. Instead, what may be significant in terms of predicting continued sobriety is the type of motivation that they are using at any particular point in time.

Another factor that was not controlled for in this study is that there is a difference in success rates found between behaviour changes that are embarked upon on the spur of the moment and pre-planned behaviour changes. Gollwitzer (1999) found that people who had ‘implementation intentions’, that is had already planned and decided how they were going to achieve their goal, were considerably more likely to do so than people who did not. Although participants had an initial plan (i.e. detox) for the short term, they varied in terms of their long-term plans (ongoing counselling, rehab, 12-step programmes etc.).

4.5.1.5 Research Question Four

The fourth research question explored whether there was a difference between the length of time the person remained abstinent and certain independent demographic variables: employment status, forensic history, relationship status, whether their partner also uses drugs, employment, primary drug type and housing status. Gaskin and Little (1992) in an earlier study looking at this same question found that the there was little difference between treatment non-completers and completers in terms of demographics. When investigating why those participants did not complete, the focus was more upon circumstances, such as lack of child care, rather than an assessment of their motivational state (although it could be argued that all non-completers could not
have been motivated, this is not necessarily the case). However there were three significant differences found. First, non-completers tended to be slightly younger (mean 35yrs as opposed to 38yrs) than completers. Second, non-completers were more often drug or poly-drug users and third, non-completers were more likely not to have been in treatment before than completers (Gaskin & Little, 1992).

Only three demographic variables in this study had sufficient numbers for a Chi-Square to be performed, namely gender, relationship status and primary drug, and of these, only primary drug produced a significant result. The analysis showed that heroin users were nearly twice as likely to relapse within two weeks of commencing withdrawal than were alcohol or cannabis users. This result confirms Edens and Willoughby’s (1999) finding amongst alcoholic and poly-substance-using precontemplators that showed that the two groups may have quite different motivational profiles and therefore it is likely that they would have different treatment outcomes. These results show that, although post-discharge care and ongoing treatment are recommended to improve treatment outcome, this need is all the stronger in the case of heroin-users.

One final issue to consider from this study is that withdrawal from any drug is a usually painful and distressing process for the patient. Furthermore residential withdrawal is an expensive and labour-intensive form of treatment requiring 24-hour care, a team of doctors, nurses, counsellors and environmental and catering services staff. With these results showing such poor outcomes, more comprehensive studies need to be conducted where withdrawal is indicated for purposes other than crisis intervention, harm reduction, respite or health.
4.5.2 Methodological issues

4.5.2.1 Prevalence of relapse

Relapse is extremely common in addiction, in part because rather than addiction being a singular discrete entity, addiction can manifest itself in many different ways. Recovery can often involve therapeutic work on psychiatric problems, personality issues, as well as skills training. Therefore, the longer the time frame of a study, the fewer the number of participants who will successfully complete by remaining abstinent. As a result, a three-month follow-up period was chosen for the current study given the relatively small number of participants to ensure a reasonable percentage of participants remained through to the end of the data collection period.

Another problem commonly found in studies, especially those involving people with substance addictions, is the difficulty researchers have in tracking this population group over extended periods of time. As a result, the inclusion criteria required that the participant must be able to provide two follow-up contact persons who would likely be aware of the participant’s substance-using status. However, despite this, several participants were still lost from the study, and follow-up calls took a considerable period of time.

4.5.2.2 The existence of a possible eighth dimension

One interesting phenomenon that was noted by the researcher during the course of the interviews was that, from time to time, the person would describe a constructive motivator that focussed upon the positives of sobriety, but rather than eliciting a positive emotion, it elicited a negative emotion. For example, one client reported that one of their motivating reasons was to get married and have children. However the emotion she reported was one of fear and anxiety because of her fears about relationships and becoming a mother. This raised the question as to whether the
constructive/avoidant dimension as described in this study is indeed a singular dimension, or is it a combination of two dimensions. The first objective dimension would be whether the motivator relates to the good things of sobriety (constructive) or the bad things of their substance use (avoidant). The second dimension would be subjective and would classify whether the emotion elicited by the motivator was positive or negative. A further study could investigate whether these two dimensions do exist as independent constructs, albeit partially correlated to each other.

4.5.2.3 Controlling the study

Addiction is a highly complex syndrome with a wide range of causes as well as presentations, and it has been clearly established in the literature that there are a very large number of variables that can have an influence on client engagement (Schmid & Gmel, 1999) and retention in treatment (Gaskin & Little, 1992), as well as treatment outcome (Foote, 1999). Many factors simply can only be controlled in research projects conducted in the field of addiction by enrolling a very large population (some studies in addiction have used cohorts of thousands or tens of thousands, e.g. Project MATCH, 1997). Therefore, the ecological validity of these data is questionable as the study cohort is not truly representative of the substance-addicted population at large.

4.5.2.4 Reliability of self-report at follow-up

Addiction can be highly distressing for the sufferer, and a person’s inability to control it may cause significant shame or guilt as well as other unpleasant emotional states. As a result of this, as well as many other factors such as fear of admitting to failure, participants’ self-report about their substance use may be unreliable, potentially invalidating the data collected.

Two possible ways to control for participants’ unreliable self-report in future studies are either to have their substance use confirmed either with a urine drug screen
at each follow up or to confirm their substance use with a family member or significant other. However, these approaches raise significant ethical concerns for two reasons. First, implicit in that process is the message that the researcher does not trust the client’s self-report. Furthermore, because the study was being conducted out of a treatment centre, they may feel that the service itself does not trust the client, something that could greatly harm their therapeutic relationship with the service and so reduce treatment outcomes (Asay & Lambert, 1999).

The other problem that this creates is one of logistics. Participants who are not also engaged in ongoing outpatient therapy with the service may be reluctant to come in for a urine drug screen every few weeks for the study. Therefore considerable resources would be needed for a nurse to go out to visit the participant, reassess them and then conduct a supervised drug screen at their home, something that would greatly add to the study’s cost.

4.5.3 Conclusion

This study established that there are indeed seven independent dimensions upon which motivating reasons can be rated. Furthermore, it found that clients of this treatment centre do have a mixture of types of motivation when rated on these dimensions with an uneven weighting in how these reasons load on five of the seven dimensions. However, given the small cohort and the number of potentially confounding variables, it was not possible to demonstrate a relationship between the type of motivation exhibited and a participant’s ability to maintain abstinence from their drug. The study also found that there was a bias towards motivating reasons based around interpersonal relationships and health issues.

The results did suggest the possibility of two more motivational dimensions. The first arises from the splitting the internal/external dimension into internal and
external locus of control and internal/external source of motivation. The second was the possibility that there is a degree of independence between whether the motivator is avoidant or constructive, and the positivity or negativity of the associated affect.

The next chapter discusses a second study where participants of a residential rehab programme attended a one-day workshop focussing upon the nature of motivation. The workshop led the participants to adjust their motivational reasons to meet certain criteria on each of the motivational dimensions. The effect that this exercise had on a range of variables was then measured. These variables included the participant’s confidence that they could change, their desire for change, and their overall motivation for change.
Chapter 5 – Study Two: The effect upon motivation to change of a one day workshop based around the multidimensional model of motivation.

5.1 Introduction

The current study proposes that, based upon the model outlined in Chapter 3, motivation to change an addicted behaviour is a product of the reasons for the behaviour change outweighing the reasons against change. These individual reasons can be quantified along seven dimensions as discussed earlier, however a brief summary is repeated below.

The first dimension, constructive vs avoidant, classifies each motivating reason based upon whether it is motivating the person by eliciting negative emotions (avoidant) or positive emotions (constructive), with the former being more effective at the early stages of recovery, and the latter being more effective once the person is in the maintenance stage of change.

The second motivational dimension, ‘self versus other initiated’ explores whether the motivating reason is created by the person themself, or requires the presence of other agents such as a partner or a court order. The model suggests that, where a motivating reason is dependent upon the presence of another agent, such as ‘so my children don’t see me drunk’, the motivation created will be dependent upon the presence of his/her children. When they are not home, the motivation for sobriety may be reduced.

The third motivational dimension concerns whether the person’s locus of control is ‘internal or external’ regarding each motivating reason. The model proposes that a person’s motivation will be stronger when he or she has a higher level of control (internal) over achieving the individual motivating reasons.
The fourth dimension of motivation, ‘real versus hypothetical’, assesses motivating reasons based upon whether a person has had previous experience of achieving that particular motivator (real) as opposed to this motivating reason being a new experience (hypothetical). It was suggested that motivators which have previously been experienced and enjoyed are likely to produce stronger and more sustained motivation than motivators the person has not previously experienced.

This model recognises that motivation to change is not static, and can change over time. As a result, the fifth motivational dimension proposes that motivation is most efficacious when the motivating reasons for change are spread out over time and so the time it takes for particular motivating reasons to be achieved forms the fifth dimension, called ‘time frame’. In addition, it is recommended that there should be a mixture of short (less than one month), medium (one to three months), and long-term (more than three months) reasons to change an addicted behaviour. This is because once a motivating reason has been achieved, motivating reasons may become significantly less efficacious and therefore they need to be replaced with new reasons if motivation is to be maintained. For example, if a person wishes to quit drinking because of the hangovers, then the ever-present hangovers will certainly provide a degree of motivation to change. Once they quit, for the first few days, the novelty of waking up clear-headed may also maintain motivation to change. However, it is possible that once being clear headed in the mornings has become the norm, it may cease to have a motivating influence upon the person.

Motivational dimension number six explores how ‘subjectively important’ each reason for change is to that person. One of the underlying assumptions in this study is that emotions are one of the primary forces that generate motivation (literally, emotion means ‘movement from’). Therefore it may be hypothesised that subjectively
important motivating reasons will create stronger motivation than other types of reason because they elicit stronger emotions.

The seventh dimension of motivation rates each reason to change based upon the person’s ‘confidence’ that they will achieve that particular motivational goal (assuming he maintains sobriety). It was therefore hypothesised that, because people are more readily motivated by goals towards which they have a strong sense of self-efficacy, therefore motivating reasons that score highly on this dimension will provide stronger overall motivation.

How often the person thinks of their particular motivating reasons for change forms the eighth dimension, called ‘frequency’. The thesis proposes that, for motivation to be created, the individual reasons have to be active in the person’s consciousness. Therefore it was hypothesised that the more frequently the person consciously thinks of these reasons, the more motivation these reasons will create.

As described in Chapter 3, the work of Miller and Rollnick (1991) proposes that there may be a relationship between the way a motivating reason rates on these dimensions and changing substance-addicted behaviours. In light of this, it may be beneficial for clients in recovery to do a workshop where they are not only educated about motivation, but their primary motivating reasons are assessed and adapted to ensure that they meet certain criteria on each of these dimensions. This study, set in a drug and alcohol residential rehabilitation programme, looks at whether such a one-day group activity exploring and understanding seven dimensions of motivation (currently part of the rehabilitation curriculum at the hospital) will enhance a person’s overall levels of efficacy and motivation towards treatment and abstinence.
5.2 Hypotheses

5.2.1 Hypothesis 1

In the light of the findings in Study One, it was predicted that, entering the motivation workshop, participants are more motivated by avoidant motivators than by constructive ones.

5.2.2 Hypothesis 2

It was hypothesised that as a consequence of attending the workshop, there would be a positive change in participant’s self-reported motivation to maintain sobriety, based upon their self-rated responses to a motivational assessment questionnaire.

5.2.3 Hypothesis 3

It was predicted that an increase of understanding of motivation would lead to an increase in the participants’ confidence in maintaining sobriety.

5.2.4 Hypothesis 4

In looking at the ratio of the total number of good things a participant reported about sobriety (Appendix I, worksheet table column 3), divided by the total number of bad things about their substance use (Appendix I, motivation worksheet table column 2), it was hypothesised that there would be a moderate positive correlation between this ratio and a participant’s initial self-reported overall desire for sobriety.

It was further hypothesised that there would be a negative correlation between this ratio and the participant’s initial self-reported overall need for sobriety.

5.2.5 Hypothesis 5

This model of motivation is quite different from previous approaches, which are based primarily upon Miller and Rollnick’s (1991) Motivational Interviewing. Therefore an exploratory analysis was performed to determine whether motivation is
enhanced by this workshop controlling for previous exposure to other types of motivational workshops at other rehabilitation programmes.

5.2.6 Additional Study Aim

An additional aim of the study was to undertake a qualitative analysis of the motivational group to clarify and explore any benefits the participants gained from the workshop beyond those measured by the questionnaire.

5.3 Method

5.3.1 Participants

Forty-three participants (24 male and 19 female) were drawn from an inpatient population at an inner city drug and alcohol inpatient rehabilitation centre in Australia, (age \( M = 42 \) years, \( SD = 11.3 \), range = 22 to 65).

5.3.1.1 Recruitment

All clients at the clinic attend a motivational one-day workshop as a part of their core rehabilitation programme. The session is repeated every two weeks to ensure that all inpatients complete it at some point during their 3 to 4 week stay. The sessions are limited to a maximum of 12 participants, and as a result it took 5 sessions to recruit the 43 participants.

Prior to the group session, the clients were screened and suitable candidates were individually interviewed to have the study explained to them. Clients were informed that the group activity being conducted was the same as is usually carried out as a part of the rehabilitation programme, and the only difference was that they would being asked to complete a brief questionnaire before and after the activity.

Clients were assured that this would be completed anonymously, refusal did not effect treatment, and they were given a plain language statement and consent form. Those that agreed were enrolled into the study.
5.3.1.2  Inclusion Criteria

There were a range of inclusion criteria that were controlled for in this second study, however, because there was no follow-up component, these criteria were not as broad as for the first study. To attempt to reduce the risk of developmental or dementia-related factors, participants were required to be between the ages of 21 and 60. To ensure that they are truly substance addicted, participants must have had their substance use diagnosed by their medical practitioner as meeting DSM IV criteria for either 303.90 – Alcohol Dependence, and/or 304.90 – Cannabis Dependence and/or 304.00 – Opiate Dependence.

All participants were attending inpatient treatment for their addiction. To ensure that they would actively participate in the workshop, participants must have specified having long-term sobriety as their goal. Because withdrawal symptoms and medications can interfere with a person’s ability to concentrate as well as their mood, only those clients who had completed their withdrawal and had had two days off all withdrawal medications were included.

5.3.1.3  Exclusion Criteria

To minimise the risk of certain factors influencing the efficacy and impact of the motivational workshop, clients who had a diagnosed psychotic or mood disorder with current symptoms were excluded from the study. Mood disorders are known to have a strong influence upon motivation, with depression being de-motivating, and mania being highly motivating. These influences may be sufficiently strong to mask any effect that an activity is having on the person’s motivation. Participants who were taking benzodiazepines or major tranquillisers were also excluded because of the possible effect that these medications have on motivation.
Because the content of the group exploring the dimensions was quite complex (see appendix K), those not fluent in English were also excluded. Exclusion also applied to clients who had previously attended this specific group activity during a previous admission.

5.3.2 Instruments

The purpose of this study was to measure whether there has been any enhancement in the quality of a person’s motivation to change their substance using behaviour following their participation in a one-day motivation based workshop. However, the main motivational measures used in addiction treatment settings, the URICA (University of Rhode Island Change Assessment, McConnaughy, Prochaska & Velicer, 1983) and the SOCRATES (Stages Of Change Readiness and Treatment Eagerness Scale, v.8, Miller & Tonigan, 1990) are both heavily weighted towards negative or avoidant reasons to change. The instruments do not detect the often subtle differences between avoidant motivation to change (the problems caused by the addiction eliciting a negative affective response) and ‘constructive’ reasons for change (the benefits of sobriety eliciting a positive affective response). Due to these inadequacies, a self-administered motivational questionnaire was developed for this study.

5.3.2.1 Self-administered questionnaire

This self-administered questionnaire was developed to collect several types of data. The only demographics were gender and age. With regard to the person’s substance use history, participants were asked what was their primary drug, the length of time they had regularly been taking it, and the number of previous residential programmes they had attended. Participants were then asked to rate several aspects of their motivation before the group using questions one to five of the questionnaire in
appendix H. These were repeated after the group (appendix H, questions 6 to 10). However, it was anticipated that participants may over-estimate their motivation in their pre-workshop self-assessment, so a further five questions were asked after the workshop regarding their perceived difference in motivation levels (appendix H, questions 11 to 15). This is because, when the activity had been run previously, clients who had reported that they were very highly motivated before the workshop then commented that they were even more motivated afterwards.

Participants were provided with a worksheet (appendix I) and were asked to write down their reasons for and against changing their substance using behaviour under the following four headings (appendix I, page 2): the good things about drinking/using (column 1); the bad things about drinking/using (column 2); the good things about sobriety (column 3); and the bad things about sobriety (column 4). The total number of reasons under each column heading was then copied across to the self-administered questionnaire in appendix L under the ‘scores’ section.

5.3.2.2 Worksheet

The other instrument used in this study was a worksheet that had already been developed for that group activity provided in appendix I. The worksheet contained some general information about motivation; prerequisites for changing motivation; and information about seven of the dimensions that are being used in this study to quantify motivating reasons.

5.3.3 Procedure

5.3.3.1 Overview

All participants attended a three-hour structured group session entitled ‘Motivation – it’s a matter of sticks and carrots’, as a part of the standard inpatient rehabilitation curriculum. The activity was divided into two 1.5-hour sessions, with the
morning session focussing upon their understanding of motivation, and the afternoon session focussing upon tailoring their motivating reasons to meet the recommended criteria on each of the seven dimensions.

5.3.3.2 Screening

Assessment commenced at the initial interview. This included both a brief interview and a review of their case history. The questions asked were to ensure that they met the inclusion and exclusion criteria.

5.3.3.3 Pre-session motivational assessment

Following the screening, those group members who were both eligible and willing to participate in the study were given the motivation questionnaire (appendix H) and asked to complete the first page down to where it says ‘Scores’, that is the demographics, substance use section, and questions 1a to 5a.

5.3.3.4 Outline of the group activity

The workshop is an exercise that has been facilitated by the researcher on a fortnightly rotation for the past 18 months. During this time, the workshop has been continually modified and enhanced based upon participant feedback. Full details along with a step-by-step breakdown of the activity are provided in appendix K and a brief overview is provided below.

The session utilises a worksheet (appendix I) that takes the participants through understanding the topic of motivation, before going onto learning the skills related to it. The session commences with participants being asked the question “what is motivation?” and two concepts are distilled and reflected back to the group, that motivation has both strength and direction, and that it is triggered by physical sensations, instincts, emotions and thoughts. The group are asked whether they believe that people with addictions as a group are more or less motivated than non-addicts.
The answers vary, some saying more, others saying less. It is reflected back to the group that perhaps people with addictions may experience more labile levels of motivation with higher peaks and lower troughs compared to the general population.

This point is illustrated with the example of a person addicted to a drug such as heroin, cannabis, or alcohol that are all classified as being ‘depressant’ drugs. The person may have very high levels of motivation when in withdrawal, and conversely, have very low levels of motivation when intoxicated (some clients do report paradoxical effects to depressant drugs though, resulting in an increase in motivation, however this is often dose dependent).

It is suggested to clients that, in fact, changing direction is not simply a matter of desire. Rather, three conditions need to be met in order to not only change the direction of motivation from substance use to sobriety, but also to be able to maintain this change in direction. These three conditions are to be ready (able to overcome any denial or complacency relating to their behaviour), willing (have reason to change), and able (have the tool required to not only overcome the addiction but lead a happy and contented life without drugs). These three conditions are discussed in greater depth in the workshop outline in appendix K.

The facilitator talked about how motivation is somewhat like a seesaw, also known as a decisional balance. On one end are the reasons to maintain the status quo, and on the other end are the reasons to change. When there is a clear imbalance with a greater number of reasons on one end or the other, the seesaw tips and the person is motivated in that direction (see diagramme in appendix I). However, when there are approximately the same number of reasons on each end, the seesaw tends to rock back and forth, a state called ambivalence.
The participants then write down 12 reasons for and against change under the four columns on that page 2 of appendix I, being ‘Good things about drinking’, ‘Bad things about drinking’, ‘Good things about sobriety’, and ‘Bad things about sobriety’. Participants are then asked to tally up the total number of reasons in each column and it is explained that the reasons in columns one and four are things that sit on the ‘don’t change’ end of their decisional see-saw, whereas the reasons in columns two and three were things that sit on the ‘change’ end of their see-saw (the bad things about drinking and the good things about sobriety).

The concept of constructive and avoidant motivators is introduced at this point, as participants’ attention is drawn to the unpleasant feelings they get in response to the reasons listed in column 2 (the bad things about their drug use), and the pleasant feelings they get in response to the reasons listed in column 3 (the good things about sobriety). To help make these concepts more concrete and tangible, constructive motivators are referred to as being ‘carrots’ and avoidant motivators are called ‘sticks’. Typically most participants realise that the majority of their motivation tends to be stick-based. It is reflected back to the group that perhaps, although both carrots and sticks generate motivation to change, sticks, because they create unpleasant feelings, may also generate motivation to drink or use drugs.

Several other differences between the efficacy of stick and carrot based motivation are then discussed. First, people seem to enjoy doing tasks more when they are motivated by carrots than sticks. Second, people may be more likely to procrastinate and put off the task when they are motivated by sticks than when motivated by carrots. Third, people report that they put less effort into a task when motivated by sticks than by carrots, and fourth, they seem to be more likely to utilise substitutes such as other drugs when stick motivated. Finally, they suggest that they
are more likely to look for excuses to give up on recovery and go back to their old behaviour when motivated primarily by sticks. This is summarised by the proposal that stick motivators create the need to change by means of physical, emotional or psychological discomfort, whereas carrots create the desire to change with the promise of physical, emotional or psychological reward.

To close this part of the workshop, it is asked whether the group feels that solely carrot-based motivation would be appropriate. Typical suggestions are that people tend to do best when motivated primarily by carrots, but with consistent stick-based boundaries. As a result, the group are told that the afternoon session will focus upon choosing four carrots and one stick that they can use as their primary motivators for sobriety at this time.

The workshop then shows participants that stick motivators can be converted into carrot ones. Participants then, saving one stick-motivator, convert their sticks into carrots before the group moves onto discussing the next six motivational dimensions included in this study with appendix K providing full details of this discussion. However, in brief this discussion explains that motivating reasons have to be important to the person, not to the other people in their lives, because reasons that are important to them may carry more emotional weight than reasons important to others. Furthermore, the reasons they choose ought to be realistic so that they are confident that they can indeed achieve them, as people may be more motivated towards goals that they believe they can achieve. The more often a person thinks about a motivating reason, the more motivation it will create. However, rather than just thinking about it, participants are encouraged to immerse themselves in the positive emotions as they may also serve to increase motivation. To summarise the last three dimensions, it is essential that the person have a trail of carrots, rather than just one ‘bunch’ right in
front of them. Furthermore, the person needs to be mindful that once a goal has been achieved, it needs to be replace with a new one. Therefore it is recommended that on a weekly basis they review the carrots for sobriety. Reasons that are self-initiated rather than those initiated by others are more consistent and reliable and finally, the motivating reasons and goals are best when they are within the person’s locus of control.

It is important to note that the multidimensional model of motivation proposed in this thesis contains eight dimensions with a ninth suggested in chapter 6. However, this workshop only addressed seven. The eighth motivational dimension, real versus hypothetical, was removed from the workshop early on in its development because some participants had reported that they were being overloaded with the amount of information they were receiving. Even though all eight dimensions may have a significant role in generating reliable motivation to change, it was felt that perhaps this dimension may play a less significant role in successful recovery and could be omitted because previous groups of clients had not identified very strongly with this dimension.

5.3.3.5 Post-session assessment

At the end of the activity, participants were asked to fill out the remainder of their motivational self-assessment questionnaires. Once completed, the researcher collected the forms and the data were analysed.

5.3.3.6 Focus group

After the workshop had been conducted 5 times with different groups of participants, 6 members of the final group were chosen at random and invited to participate in a 45 minute focus group session to discuss their experiences of the workshop. They were given and read the plain language statement and consent form.
They were informed that the session would be recorded and then those who consented had a break before reconvening in the group room. The participants were allocated a number to preserve anonymity.

The participants were then asked the following questions and the full transcript from the interview can be found in the appendix L.

- What was the most important aspect for you from today’s workshop and why?
- How do you think that this workshop is going to help you in your recovery?
- What, if anything in today's workshop helped you to understand where you may have gone wrong in your past attempts to change?
- What specifically will you be doing differently after today's workshop?
- How will you know if it is working for you? What will you do if it isn't?
- Would a follow-up or booster session be useful? If so, then why?

Participants were then thanked for their time and the data was taken for analysis.

5.4 Results

The data were analysed using SPSS® v11.5 for Windows®. Basic data screening procedures were carried out to ensure that there were no errors and data were also screened for outliers. When asked about their primary drug, 81% of the participants identified alcohol, 12% identified cannabis, 5% identified heroin and 2% identified benzodiazepines. When asked for how long they have been using this drug regularly, 5% reported less than 2 years, 9% responded 2-5 years, 28% reported 5-10 years and the majority, 58% reported that they had used their primary drug regularly for more than 10 years.

When asked about the number of previous admission they have had, 5 participants (12%) reported none, 13 participants (30%) reported one or two
admissions, 17 participants (40%) reported three to five admissions, 6 (14%) reported six to nine admissions, and 2 (5%) reported 10 or more.

5.4.1 Hypothesis 1

It was predicted that on entering the motivation workshop participants would be more motivated by avoidant motivators than by constructive motivators. In this study, the mean number of avoidant motivating reasons for participants was 6.5 ($SD = 3.0$) and the mean number of constructive motivating reasons per participant was 6.3 ($SD = 3.1$). This was not a significant difference, $t(42) = 0.6$ (2-tailed), $p<0.05$.

5.4.2 Hypothesis 2

It was hypothesised that there would be an overall improvement in motivation to maintain sobriety after participants completed the motivation workshop (appendix H, item 11). The results showed that of the 43 participants, 25 reported that their motivation was ‘much better’, 13 reported that their motivation was ‘better’, 3 reported ‘no change’ and 2 reported that it was ‘a little worse’.

The analysis of their self-scaled motivation for sobriety both before (appendix H, item 1) and after the workshop (appendix H, item 6), provided $M=4.35$, $SD=0.92$ for before the workshop, and $M=4.74$, $SD=0.54$ for after the workshop. Both reflected high levels of motivation, and this increase showed a positive significant difference before to after the workshop, $t(42) = -2.79$, $p= 0.008$ (two-tailed).

Further analysis of these data shows that of the 19 participants who rated their motivation at the beginning of the workshop (appendix H, item 1) with the maximum score of 5 (very strong), 16 reported that their motivation was ‘much better’ and 3 reported that their motivation was ‘better’ as a result of the workshop (appendix H, item 11) demonstrating that there was a ceiling effect with items 1 to 10, emphasising the need for items 11 through 16.
These ceiling effects were also observed for the items: ‘confidence at maintaining sobriety’, ‘understanding of motivation’, ‘need for sobriety’ and ‘desire for sobriety’.

5.4.3 Hypothesis 3

It was predicted that an increase in understanding of motivation (appendix H, item 13) would lead to an increase in the participants’ confidence in maintaining sobriety (appendix H, item 12). The results of a Pearson Correlation analysis between these scores indicated that $r = .22$, $p < 0.05$ therefore the relationship was significant, albeit small.

5.4.4 Hypothesis 4

In looking at the ratio of the total number of good things a participant reported about sobriety divided by the total number of bad things about their substance use (appendix H, bottom of page 1), it was hypothesised that there would be a weak positive correlation between this ratio and a participant’s overall desire for sobriety. When a Pearson correlation was applied to these two totals, the relationship was not significant ($r = .12$, $p > 0.05$).

It was further hypothesised that there would be a negative correlation between this ratio (total number of good things about sobriety and the total number of bad things about their substance use) and the participant’s self-reported overall need for sobriety. A Pearson correlation was applied this relationship was also not significant ($r = .10$, $p > 0.05$).

5.4.5 Hypothesis 5

It was predicted that the number of previous admissions to rehabilitation programmes would not result in a significant difference in the participants’ improvement in motivation. A t-test was conducted on the participants responses to
item 11 in appendix H with the participants being divided into two groups, those who had attended one or no previous rehabilitations \((n = 19, M = 4.37, SD = 1.01)\), and those that had attended two or more \((n = 24, M = 4.46, SD = 0.66)\). This hypothesis was supported, \(t(42) = -0.33, p > 0.05\).

5.4.6 Additional Study Aim

An additional aim of the study was to undertake a qualitative analysis of the motivational group by means of a focus group to clarify and explore any benefits the participants gained from the exercise in addition to those measured by the questionnaire. Several key themes emerged as being most important and will be discussed later in section 5.5.1.6.

5.5 Discussion

5.5.1 Interpretation of the results

5.5.1.1 Hypothesis 1

It was predicted that, upon entering the motivation workshop, participants would be more motivated by avoidant motivators than by constructive ones. This hypothesis, based upon the results of Study One discussed in Chapter Four, was not supported.

Like Study One, this study also had a relatively small number \((N = 43)\) of participants and therefore it should be repeated with a larger sample to see whether this result continues to hold true. Participants who were still in withdrawal reported that they found it difficult to come up with motivating reasons of either type. The same applied to those whose reported that their mood was low on the day (those with diagnosed depression were excluded), whereas others reported relative ease in thinking up their motivating reasons. As a result, it is possible that physical and emotional
states influenced the participants’ ability to recall their motivating reasons and future studies could consider controlling for these factors.

5.5.1.2 Hypothesis 2

It was hypothesised that there would be an overall improvement in motivation to maintain sobriety as a result of participants completing the motivation workshop. The results showed that when the participants were asked to subjectively rate their motivation compared with how it had been before the workshop, the overwhelming majority responded that it had improved.

This result clearly demonstrated that there was an immediate enhancement in motivation as a result of completing this one-day workshop that suggests that learning about motivation in the context of these dimensions is something that participants found beneficial. However, there are two issues here that future studies would need to explore. First, is this motivational increase maintained, and second, how does this motivational workshop compare with other approaches to enhancing motivation and Miller and Rollnick’s (1991) Motivational Interviewing in particular?

These results also confirmed an interesting phenomenon that had been anticipated when the questionnaire was developed. Rather than only asking participants to rate their motivation before and after the workshop (appendix H, items 1 and 6), the questionnaire also asked them to rate whether their motivation had improved as a result of the workshop (appendix H, item 11). Nineteen of the participants rated their motivation at the beginning and end of the workshop with the maximum score of 5 (very strong). However, of those, 16 reported that their motivation was ‘much better’, despite it receiving the same maximum score in questions 1 and 6. This reflects problems in designing subjective motivational assessment instruments, and the importance of the final five questions to ensure valid
data because these participants had possibly either overestimated their pre-session level motivation, or alternatively, they had never before experienced this degree of motivation.

5.4.1.3 Hypothesis 3

It was predicted that an increase in understanding of motivation (appendix H, item 13) would lead to an increase in participants’ confidence (appendix H, item 12) in their ability to maintain sobriety. The significant result is highly important given the role that confidence and hope play in successful treatment outcomes throughout the field of psychotherapy (e.g., Asay & Lambert, 1999). Whether or not participants do possess more skills to attain and maintain sobriety, having increased confidence in achieving sobriety will certainly increase the likelihood of their attaining it (Asay & Lambert, 1999).

5.5.1.4 Hypothesis 4

It was hypothesised that participants would be more likely to desire sobriety if they had more constructive motivators than avoidant motivators, and conversely, they would be more likely to need sobriety if they had more avoidant motivators than constructive ones. In looking at the ratio of the total number of good motivators a participant reported about sobriety (constructive motivators, appendix I, worksheet table column 3), divided by the total number of bad motivators about their substance use (avoidant motivators, appendix I, worksheet table column 2), it was hypothesised that there would be a weak positive correlation between this ratio and a participant’s self-reported overall desire for sobriety (appendix H, item 5), and a weak negative correlation with participants’ overall need for sobriety (appendix H, item 4).

There was no significant relationship found, however there are concerns about the reliability of these data. Individual motivating reasons have a different ‘weight’ or
loading on the decisional balance with respect to one another. Furthermore, the weight of a particular motivating reason can fluctuate considerably. The reason ‘I must stop drinking or my wife will leave me’ would carry less weight if she has threatened to do so but failed to follow through, than if she actually moved out and informed him that she was not coming home until he stopped drinking. In this second scenario the relative weight of this avoidant motivator would dramatically increase compared to the first scenario.

An accurate assessment of the absolute weight of a particular motivating reason would be extremely difficult to ascertain quantitatively, and even if a way were found to measure it, this would most likely not be a useful exercise. This is because the relative ‘weight’ of a motivating reason can change rapidly. Therefore, an approximation by assuming that all motivators are equal in weight is the only realistic way to research this hypothesis, however any results should be seen as an approximate guide only, and far from being an empirical certainty. However, this tool was primarily developed for clinical utility rather than statistical validity and it is in clinical settings that it is most readily used.

5.5.1.5 Hypothesis 5

It was predicted that the number of previous admissions to rehabilitation programmes would not result in a significant difference in the participants’ improvement in motivation. This hypothesis served to act as a degree of control over the data by comparing the improvements of persons who were new to treatment with those who had had several previous admissions and therefore likely to have attended some motivational work before. This would therefore rule out the effect of simply talking about motivation as being the primary factor effecting the changes. As there was no real difference between the improvements of these two groups, this finding
lends support to the argument that the content of this workshop contributed to improved motivation independently.

To further validate these results, it would be preferable to conduct a control study directly comparing this motivational workshop with Miller and Rollnick’s (1991) motivational interviewing.

5.5.1.6 Additional Study Aim

An additional aim of the study was to undertake a qualitative analysis of the motivational group by means of a focus group to clarify and explore any benefits the participants gained from the activity that were not assessed directly by the questionnaire. The focus group of six participants revealed several key themes and a full transcript is available in appendix L.

5.5.1.6.1 Question One “What was the most important aspect of the workshop and why?”

All six participants made reference to the concept of sticks and carrots (representing avoidant and constructive motivators respectively). They identified that they usually focus upon the negatives of drinking, and typically ‘beat themselves up’ (sic) in response to lapses, rather than focussing upon the positives of sobriety. This showed that although the principles of punishment and reward in behaviour modification are well known in psychology, they are not well understood in the broader community and may not be sufficiently emphasised in drug and alcohol treatment. The participants responded well to discussion around the five key differences between stick motivation and carrot motivation discussed in greater detail in Appendix K, being procrastination, substitution, looking for excuses to lapse, half-heartedness, and finding the process of recovery distressing.
Furthermore, the participants reported that they did generally rely upon avoidant motivation, and that this often created additional cravings. As one participant put it “If I’d realised I’d applied it (the concept of sticks and carrots) to myself instead of beating myself up every time I have had a drink and think about why I shouldn’t be drinking, rather than why I should be sober. I found that very important”

One participant reported that she tends to think in pictures and images and that she found the metaphor of ‘sticks and carrots’ made it easier for her to apply this concept. Another participant also reported a sentiment that is commonly expressed by clients in recovery: “I know what the bad is, but I need to picture what the good is.”

5.5.1.6.2 Question Two. “Which of the other dimensions of motivation we discussed did you find important?”

The responses to this question were varied with two participants talking about the time frame of their carrots/rewards (short, medium or long-term) with particular reference to replacing goals and reasons for sobriety once they have been achieved. As one participant put it “(time frame) was probably as important as sticks and carrots, as I’ve failed in the past because I didn’t keep renewing my goals”. One of these two participants also reported that internal/external locus of control was important for her because she identified that she always relies on others for approval, however often this is out of her control.

Another participant identified the ‘importance’ dimension because she felt it gave her an idea of what were her priorities. The other two participants both identified the ‘self/other’ dimension, with one saying “because for me it’s acknowledging basically what I can do internally in terms of managing my own anxiety”.
5.5.1.6.3 Question Three. “Did the workshop provide you with any insight into why your previous attempts to change were not successful?”

The responses indicate that indeed it had for a range of reasons, with the role of sticks and carrots once again being prominent in their replies, and how they have relied upon stick/punishment based motivation in the past. The first participant stated that “because of the amount of sticks I had I was building a bonfire basically, and I had no carrots. But I do have carrots in my life but I wasn’t looking at (them)… the carrots equal hope or faith for me.”. Another respondent shared a similar sentiment with “I don’t concentrate on the sobriety, I concentrate on the sticks (i.e. trying not to drink) and so, um, it just builds up and up until crisis point.” suggesting that by focussing upon the sticks, the pressure built up until it was no longer sustainable and resulted in her lapse.

The final respondent highlighted the time frame dimension, saying that he had not put: “... an achievable timeline in place to step by step manage the problem.”. Another two respondents felt empowered by this technique to be able to obtain sobriety. The final respondent reported that he had “failed to restock my carrot supply up, then I tended to go for the stick more so than for the next carrot, which seemed too far away for me to grasp and not continually restocking my cupboard with short term carrots.” The first respondent then added in closing that “I don’t know that in the past I’ve actually even made the distinction between a carrot and a stick”.

5.5.1.6.4 Question Four. “In terms of previous rehabs that you may have done, where did the emphasis lie regarding sticks and carrots?”

The response was as expected, given the participants in all groups reporting how novel they had found this information. Four reporting that the emphasis had been ‘stick only’, and the other two reported that they had heard about both carrots and
sticks, however the workshop they had done had not highlighted the different way by which sticks and carrots motivate a person. One participant pointed out that: “I’d never heard of carrots and sticks until today. It is just incredible for me to learn it in this way, I just learned so much” and another added: “I’ll be making sure that I review my carrots and sticks on a weekly basis”.

5.5.1.6.5 Question Five. “How will you be able to tell if this new knowledge and skills was helping you to remain sober?”

There were a mixture of responses however the key theme was the participants having embraced the concept of sticks and carrots. The first response was a simple: “I’ll be sober” adding that if it did not work for him he would: “introvert myself and isolate away from other people”. The next respondent said that: “I’d be focussing upon carrots... and eating a carrot along the way!”. If it was not working, she added that she would: “just keep trying... I think the carrots are about loving yourself and being responsible”. This was followed by another respondent suggesting that he would be focussing upon growth, with the next respondent adding: “I’d be able to measure that by seeing if I was reaching forward for a goal in a positive way, rather than being driven by fear of a negative outcome in a bad procrastinated (way)”.

The last two respondents commented that one would: “be revising my goals each week” if this tool was working, and the other offered that: “I’ll have no fear to start off with. I’ll be back to myself, who is quite a nice person.” Another comment added was: “this makes much more sense than the other rehabs that I’ve had before, it’s something that I can really understand”.

5.5.1.6.6 Question Six. “Would a booster session be useful?

All of the participants agreed that a booster would be useful, with several participants feeling that it would be essential. This has been observed by the researcher
over the previous 18 months, when clients who, having been readmitted because of a relapse, had repeated the workshop and had reported that they continued to find it beneficial, learning new information each time. As one participant put it: “everyone get complacent... I think as alcoholics (I) forget and think ‘I’m OK, I’m OK, I’m fantastic, I’m well’ and I’m not”.

5.5.2 Methodological Issues

5.5.2.1 Controlling the study

As has already been identified earlier in this discussion, this study should be replicated on a larger sample controlling for as many factors as possible (such as comorbid mental illness) to increase the validity of the data. The presentation of content of this workshop was unique, and was clearly shown to increase motivation. However, for it to be useful and empirically sound, it has to be more effective at increasing motivation than the methods currently used, the most common and empirically validated of which is Miller and Rollnick’s (1991) Motivational Interviewing. Therefore a follow up comparison study would be required.

5.5.2.2 Accuracy and reliability of participants’ self-report

There is always a risk when using subjective measures, such as participants’ own self-report, that the data will become less reliable. What is a state of high motivation for one person maybe regarded as a state of lower motivation by another. Therefore it is difficult to regard these data as objective and homogenous. It was assumed that prior to commencing the workshop, participants would significantly overestimate their level of understanding of motivation and the findings confirmed this assumption.

Another issue that arose was that several participants were observed to be working across the four columns, placing one response in each at a time, thus making
the total number in each column more likely to be the same. These two observations may explain the concordance between the number of constructive reasons and the number of avoidant reasons given by participants.

To control for this effect, a future study could ask participants to initially list their motivating reasons for wanting to change, and then place those reasons in the appropriate column on the worksheet, either ‘good things about sobriety’ (constructive) or ‘bad things about drinking/using’ (avoidant).

5.5.2.3 Follow-up studies

The final methodological issue that would need to be addressed to establish the usefulness of these results would be to see if these motivational enhancements are long lasting. During the focus group, all participants felt very strongly that a follow up group would be beneficial. A controlled study comparing this model of motivational enhancement with Miller and Rollnick’s (1991) motivational interviewing could follow up the participants to see the longevity of these motivational enhancements. Subgroups could be included, with those taking just the workshops as a one-off, whilst the others also receive some follow-up. However, the problem of the large number of potentially confounding variables in any longitudinal study in the field of addiction still remains, and therefore either a very tightly controlled population would be needed, or, a large sample size to attempt to control for these confounding factors.

In summary, this study highlights a range of issues relating to the treatment of addiction. First, clients are likely to overestimate their understanding of motivation. Second, the majority are unaware of the different types of motivation, responding strongly to the concept of constructive and avoidant type motivators. This qualitative analysis suggests that this effect at least in part may be attributable to the metaphorical delivery of the information through the use of sticks and carrots. Nonetheless, the data
show that the workshop does significantly improve participants’ motivation, adding support to the findings of the study in Chapter Four which found that the dimensions are valid constructs and that motivation varies significantly from individual to individual. Whilst there will always be empirical problems in any research relating to addiction, these studies provide growing support for the clinical utility of this way of understanding motivation, which was the purpose of this line of investigation in the first place.

These findings along with those of the previous study described in Chapter Four, are brought together in the next chapter. The discussion then will focus upon their implications for treatment as well as recommendations for future research.
Chapter 6: Implications of the study and future research

This thesis examined a multidimensional model of motivation to cease addicted substance-using behaviour, and, rather than measuring the strength of motivation as a uni-dimensional construct, explored the qualitative factors behind motivation, based initially upon seven motivational dimensions identified from the literature. Furthermore, the findings suggested the existence of a further two dimensions in addition to the original seven. The seven dimensions supported by the first study were Importance, Confidence, Frequency of Thought, Constructive versus Avoidant, Internal versus External locus of control, Real versus Hypothetical, and Time Frame. Further distillation of the constructive versus avoidant dimension suggested that the type of emotion attached to that motivator (pleasant or unpleasant), was partially independent of whether that motivator was constructive or avoidant because some participants did report unpleasant emotional responses to their constructive emotions.

The second additional dimension resulted from the distillation of the internal versus external dimension, producing ‘self- versus other-motivated’ as well as retaining the original dimension of ‘internal versus external locus of control’. This new dimension measures whether the person needs another person or entity (such as a court order) to be actively and presently exerting its influence for the motivation to be maintained, as opposed to the motivation being generated internally by the person themselves.
6.1 Future research questions

6.1.1 Investigating the differences between constructive and avoidant motivators.

One of the key areas explored in these studies was the difference between constructive (the good things about sobriety) and avoidant (the bad things about the addiction) motivators discussed in section 3.2.1., the existence of which was supported by the results from the first study. Both constructive and avoidant motivators generate motivation, however they seem to play a different role at different stages of change. Future research could explore whether these two different motivational styles (primarily avoidant and primarily constructive) are more global personality characteristics, or are these styles restricted to the person’s motivation to change their addicted behaviour, and if so, how do these two motivational styles evolve?

Irrespective of what creates the tendency for a person to use constructive or avoidant types of motivators, further research is needed into the nature of the differences in the way that they create motivation. Five possible differences have already been suggested in this thesis based upon the self-report of patients. The first of these is the possibility that people may tend to procrastinate entering treatment when they are avoidantly-motivated. Second, when there is a difficult task to perform, such as recovery from an addiction, the process may be more pleasurable when the motivation is being generated by a constructive motivator than when it is being driven by avoidant motivators.

A third possible difference suggests that when people are motivated by avoidant motivators (such as hangovers, financial worries, or relationship problems), their priority is the cessation of that motivator, and any possible outcome that results in that cessation, not just sobriety, will satisfy that motivating reason. However, constructive motivators (such as to get fit, get back into work, improve the
relationship) are more directionally specific, being goal orientated and therefore may be more effective at helping the person remain motivated for sobriety. A fourth difference between avoidant and constructive motivation, often anecdotally reported in treatment centres, is that clients may put less effort into recovery and treatment when they are avoidantly motivated than when constructively motivated.

The fifth and final hypothesised difference between these two styles of motivation involves eagerness to find an excuse to cease treatment. Could clients who are constructively motivated be more tolerant of problems, incidents and obstacles in their treatment than those who are avoidantly motivated? These hypothesised differences between constructive and avoidant motivators should be investigated in future studies.

6.1.2 Investigating the validity of a nine dimensional model of motivation.

A future study should be conducted to validate the existence of all nine dimensions and determine their relative influence on motivation. However, with all scientific theory, there is a balance between accuracy and complexity. A theory is of little applied use if it explains everything but is almost as complicated as the phenomenon. This thesis began with seven motivational dimensions, however as the work progressed, a further two became apparent. Therefore the most influential of these nine dimensions of motivation needs to be identified and brought into clinical prominence.

The focus group in Study Two identified several dimensions as being ones that participants found particularly useful, namely constructive versus avoidant (carrots and sticks), time frame, frequency of thought, importance, self versus other-initiated and internal versus external locus of control. Even so, further research needs to be
conducted as to whether these dimensions do increase motivation to cease substance abuse and generate better outcomes.

6.1.3 Investigating the types of motivating reasons of people presenting for treatment.

The studies in this thesis involved small sample sizes, and as a result, tight exclusion and inclusion criteria were set to attempt to control for as many confounding factors as possible. This meant that 80% of all clients screened for the first study were excluded, so the types of motivating reasons collected may not be representative of the addicted population as a whole. It would be important to repeat this section of the study with no exclusions, thus collecting and measuring on the specified dimensions the most important motivating reasons for all of clients entering treatment services.

6.1.4 Comparing the motivating reasons of people in different stages of change.

As was discussed section 4.5.1.2, even if a comprehensive picture is created of the types of motivating reason that people are using when they present to treatment, this does not logically mean that these reasons will motivate a precontemplator into treatment. Therefore, a longitudinal study is needed to assess the motivation of precontemplators and contemplators and follow them through to the action stage to see whether there is indeed a shift in the types of motivating reason as the person progresses from stage to stage. Because motivation is fluid, a future study would need to follow those persons on through to the maintenance stage of change, regularly reassessing their motivating reasons. This would clarify what types of reasons (according to the nine dimensions) are most effective at helping a person to progress through the stages of change and onto making a change in their addicted behaviour, and also, whether it is the same or different types of reasons that enable them to maintain that change.
As well as the possibility that the different stages of change require different types of motivating reasons, the most effective type of motivator may vary depending upon the severity of the person’s addiction. It is possible that whereas certain types of motivating reason may be more effective for those having recreational or low level addictions, other types of motivator may be needed for persons with severe long-standing addictions.

People with addictions are far from a homogenous group. The most effective types of motivators may also vary between certain sub-groups. This is not simply restricted to different types of addiction, as discussed in section 4.5.1.5, where the difference in recovery patterns between heroin users and alcohol and cannabis users was one of the significant findings. Rather, variations in the most effective types of motivator may also be gender-based, culturally based, age-related, or socio-economic. For example, the threat of incarceration may be a much stronger motivator for a female cocaine-addicted barrister than for a male street-dealing heroin user from an economically deprived neighbourhood. Therefore any future application of this research needs to recognise that this model was developed primarily for its utility in clinical settings, and should not be generalised to all people with addictions and/or substance using problems.

6.1.5 Comparing this approach to enhancing motivation with best-practice approaches.

Once the validity of this method for modelling motivation has been established across the different stages of change, different levels of addicted behaviour, different drugs, and other socio-cultural factors, the model would then need to be tested against the current benchmark of best-practice techniques for enhancing
motivation. The dominant best-practice approach in this field remains Miller and Rollnick’s (1991) Motivational Interviewing.

Because Motivational Interviewing as a technique has already been widely empirically tested and validated for its efficacy, it would be useful to modify existing motivational interviewing strategies to incorporate the key principles of the multidimensional approach, and then test that modified therapy against the pure form of motivational interviewing. This could result in the development of a clinically useful tool that would benefit both treatment services and clients alike.

6.1.6 Applying this model to non-addicted behaviours.

The final logical progression in this work is to take this multidimensional model of motivation to change substance-using behaviours and test it across other areas of behaviour change and motivational enhancement. Potential applications of this model extend beyond the realm of addiction psychology into other fields where problem behaviours seem resistant to change. These include counselling and psychotherapy, health psychology as well as diet, fitness and healthy lifestyle applications.

The potential application of this model does not need to be restricted to changing clinically problematic behaviours. The disciplines of organisational psychology and sports psychology both place a strong emphasis upon enhancing behaviours that are already functional and adaptive to make the person even more motivated towards their goals.

6.2 Summary

This research does not purport to be an attempt to solve the problems associated with overcoming substance addictions. It recognises these behaviours as being extremely complex, and that their aetiology and symptomatology are as varied
as the people who suffer from this condition. Furthermore, the study of motivation in
the context of addiction is just one many areas that need to be addressed when helping
someone overcome this illness and have a chance for a contented life. Rather, it is
hoped that this thesis and any future research that it may stimulate, may provide some
tools to help clinicians and clients to work together to overcome some of the
seemingly impenetrable and stubborn barriers to recovery.

Clinical experience suggests that once the trust of a client has been gained, and
they feel safe enough to lower their defences, they usually admit that they are
desperate to change despite what they may say to others. However, all too often, these
long-suffering people are blamed for their illness by society, possibly because society
and some health professionals may find it difficult to properly comprehend this
devastating and often paradoxical condition which is, when you include its many
manifestations such as eating disorders, gambling, tobacco, alcohol and other drug
use, probably the most prevalent adult health issue facing Western populations.

It is the responsibility of the health community to continue to question the low
success rates of treatment programmes, and to continue to explore how interventions
can outcomes no matter how small that improvement may be. It is the hope of this
clinician and researcher, a hope shared by many of his colleagues working
passionately in the drug and alcohol sector, that urgently needed better treatment
outcomes continue to be developed for this marginalised and too-long suffering group
in our community.
References


Cox, M., Blount, J., Bair, J., & Hosier, S., (2000). Motivational Predictors of Readiness to Change Chronic Substance Abuse. *Addiction Research, 8*, 121-128


Turning Point (2003). *Cost of heroin in Victoria.* State of Victoria Department of Human Services


Appendices

Study 1
A. Information Sheet for Participants (Plain Language Statement)
B. Informed Consent
C. Assessment Questionnaire
D. 200 Motivating Reasons
E. Results of follow up study

Study 2
F. Information Sheet for Participants (Plain Language Statement)
G. Informed Consent
H. Self-assessment Questionnaire
I. Motivation Workshop Handout
J. Full Results Table
K. Outline of Motivational Workshop
L. Transcript of Focus Group
Appendix A

Information Sheet (Plain Language Statement)
PROJECT TITLE

An investigation into whether specific motivating dimensions influence an person’s ability to effect and maintain a change in drug-using behaviours.

INVESTIGATORS

This study is being conducted by Matthew Berry from Swinburne University of Technology in association with Western Hospital Drug and Alcohol Services, under the supervision of Dr Naomi Crafti of Swinburne University of Technology.

EXPLANATION OF PROJECT

The project involves a series of interviews regarding your reasons to commence a regular exercise programme, and whether these have any impact upon the individual's ability to effect and maintain this change. The purpose of this research is to better tailor treatment to an individual's needs, in order to assist them in achieving their desired goal relating to their drug-using behaviour.

You will be interviewed at prearranged intervals, varying from weekly, to once every three months. This interview can usually be conducted over the telephone, and will last between 10 and 30 minutes. During the interview you will be asked the some of the questions that you were asked at your initial assessment, along with some extra questions regarding your reasons for wanting to change your drug-using behaviour.

Consent to take part in this research will not alter your acceptance into the service or the nature of the treatment that you will receive. Any results of this research that may improve your future treatment will be forwarded to your treating agency.

You are free to withdraw from the research at any stage. Withdrawing will not in any way effect any current or future treatment you will receive.

Published results will have all identifying data removed. During the course of the research, data will be stored in a locked cabinet along with the agency's other client files.

Any questions regarding the project entitled "An investigation into whether specific motivating variables influence an individual's ability to effect and maintain a change in their drug-using behaviours." can be directed to the Senior Investigator, Naomi Crafti, of the School of Social and Behavioural Sciences on 9214 5355.

If you wish to lodge a complaint about the way you have been treated during the study, or a query that the Senior Investigator has been unable to satisfy, you are encouraged to contact Professor Sue Moore, Head Of Psychology, on 9214 5964, or:

The Chair, Human Research Ethics Committee, Swinburne University of Technology, P O Box 218, HAWTHORN. VIC. 3122 Phone: (03) 9214 5223

Behavioural & Psychiatric Research & Ethics Committee C/O Sunshine Hospital 176-190 Furlong Road, ST. ALBANS, VIC. 3021 Ph.: (03) 8345-1681
Appendix B

Informed Consent
RESEARCHER:

I, Matthew Berry, certify that I have fully explained the aims, risks, and procedures of the research to the participant named herein (or to the lawful guardian of such patient) and have handed to the participant(or guardian) a copy of this Consent together with a PLAIN ENGLISH STATEMENT of aims and procedures of the experiment and any risks to the participant.

In my opinion the participant (or lawful guardian thereof) appears to understand and wishes to participate.

I undertake to the participant (or lawful guardian thereof) that the confidentiality and anonymity of the participant and his or her records will be preserved at all times.

SIGNED: .......................................................... DATE: .........................

CONSENT OF PARTICIPANT

The purpose of the above project has been fully explained to me and I have read the attached PLAIN ENGLISH STATEMENT. I UNDERSTAND the aims and procedures of the experiment and any risks to myself which are involved and I REQUEST to participate on condition that I can withdraw my Consent at any time.

SIGNED: .......................................................... DATE: .........................

WITNESS OF PARTICIPANT’S SIGNATURE

I, ........................................................................................................ of DAS West

as an independent witness confirm that the aims and procedures of the research and any risks to the participant has been adequately explained to the participant whose signature I witness. In my opinion he/she appears to understand and wishes to participate.

SIGNED: .......................................................... DATE: .........................
Appendix C

Assessment Questionnaire
Demographics

Family Name: ........................................... Given Name: ............................................

Preferred Name: ............................ D.O.B. ......../....../...... Age ...... Gender ......

ADDRESS: .......................................................... P/code: ...........................................

Daytime Phone: .................................. Other/Mobile Phone: ...........................................

Follow Up Contacts

<table>
<thead>
<tr>
<th>Name</th>
<th>Relationship</th>
<th>Telephone</th>
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Relationships

- None
- Yes – non-behaviour
- Yes – behaviour
- Yes – living together non-behaviour
- Yes – living together - behaviour

Housing

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<th>Type of Housing</th>
<th>Stability</th>
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<td>Less than 1 week</td>
</tr>
<tr>
<td>No Fixed Abode</td>
<td>Less than 1 month</td>
</tr>
<tr>
<td>Rooming/Boarding</td>
<td>Less than 3 months</td>
</tr>
<tr>
<td>Renting</td>
<td>More than 3 months</td>
</tr>
<tr>
<td>Family</td>
<td>No other addiction behaviour in household</td>
</tr>
<tr>
<td>Owned/Buying</td>
<td>Other behaviours, but not behaviour of choice</td>
</tr>
<tr>
<td></td>
<td>Other behaviours inc behaviour of choice</td>
</tr>
</tbody>
</table>

Employment

- Unemployed
- Employed casual
- Employed part-time
- Employed Full-Time
- Studying

Forensic [substance use group only]

- None
- Past Only
- Bail/Charged
- On Order
Substance Use and other Compulsive Behaviours:

<table>
<thead>
<tr>
<th>Drug</th>
<th>Current</th>
<th>Goal</th>
</tr>
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Outcome:

<table>
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<tr>
<th>Detox*</th>
<th>1 Week*</th>
<th>1 Month*</th>
<th>3 Months</th>
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* - substance use group only

Could you tell me some reasons, goals, or motivating factors that are making you want to change your drug using behaviour/start an exercise programme?

1 ..............................................................................................................................

..............................................................................................................................

2 ..............................................................................................................................

..............................................................................................................................

3 ..............................................................................................................................

..............................................................................................................................

Subjective Qualities

For each motivating factor please ask the participant the following questions:

A) How confident are you that you will achieve this goal?

G) *  *  *  *  *
   1) *  *  *  *  *
   2) *  *  *  *  *
   3) *  *  *  *  *

(1)------------------ (2)------------------ (3)------------------ (4)------------------ (5)
not at all confident very confident

B) How important is it for you to achieve this goal?

G) *  *  *  *  *
   1) *  *  *  *  *
   2) *  *  *  *  *
   3) *  *  *  *  *

(1)------------------ (2)------------------ (3)------------------ (4)------------------ (5)
not at all important very important
C) How often do you think about this goal?

<table>
<thead>
<tr>
<th></th>
<th>G</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than, once a week</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>every few days, daily, more than once a week</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
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D) How much control do you see yourself as having around achieving this goal?

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<tr>
<th></th>
<th>G</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>The individual has no control over the outcome.</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
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<td>The individual has less control over the outcome than that exerted by other factors.</td>
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E) Have you ever had experience of this goal?

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F) When do you realistically expect to achieve this goal?

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G) Constructive/Avoidant [To be scaled by researcher]

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Appendix D

200 Motivating Reasons
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I don't want to get onto any heavier drugs.

To prevent her relationship falling apart

So I am not controlled by the alcohol

She does not feel physically well.

Needs to get his health back because it is making him sick

It has taken control of his life

He has lost his mates.

To get along better with my family at home

To not always be thinking about alcohol and planning life around it

She doesn't remember what she does when drunk

To enjoy his kids

To be able to hold down a job

I know that if I continue I'll die

Always feels sick/hungover

Can’t work / unreliable

It’s straining her relationship with her boyfriend

She wants to develop a career

Wants to start saving money

She feels unhealthy

So my mum won’t find out

Can’t pay my debts and fines off

I want to settle down and get married

Her erratic moods and behaviour are not good for her children

She wants to be able to be normal and think clearly

Not being dependent and tied down to the bong

So he can spend more time with his kids

So I have a better relationship with my partner
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Appendix E

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Appendix F

Information Sheet for Participants (Plain Language Statement)
PROJECT TITLE
An investigation into whether specific motivating variables influence an individual's ability to effect and maintain a change in their drug-using behaviours.

INVESTIGATORS
This study is being conducted by Matthew Berry from Swinburne University of Technology in association with Western Hospital Drug and Alcohol Services, under the supervision of Dr Naomi Crafti of Swinburne University.

EXPLANATION OF PROJECT
The part of the study involves a focus group discussion about motivation, addiction, and in particular, what your thoughts are on today's motivation workshop. The purpose of this research is to better tailor treatment to an individual's needs, in order to assist them in achieving their desired goal relating to their drug-using behaviour.

The group will last about one hour, during which you will be asked several questions about today's activity and any impact it may have had upon you. You are free to withdraw from the discussion group at any stage. Withdrawing will not in any way affect any current or future treatment you will receive.

Consent to take part in this research will not alter your acceptance into the service or the nature of the treatment that you will receive. Any results of this research that may improve your future treatment will be forwarded to your treating agency.

Published results will have all identifying data removed. The discussion will be recorded. This will then be transcribed removing all names and other identifying information. The recording will then be destroyed.

Any questions regarding the project entitled "An investigation into whether specific motivating variables influence an individual's ability to effect and maintain a change in their drug-using behaviours." can be directed to the Senior Investigator, Naomi Crafti, of the School of Social and Behavioural Sciences on 9214 5355.

If you wish to lodge a complaint about the way you have been treated during the study, or a query that the Senior Investigator has been unable to satisfy, you are encouraged to contact Professor Sue Moore, Head Of Psychology, on 9214 5984, or:

The Chair, Human Research Ethics Committee, Swinburne University of Technology, P O Box 218, HAWTHORN. VIC. 3122 Phone: (03) 9214 5223

Behavioural & Psychiatric Research & Ethics Committee C/O Sunshine Hospital 176-190 Furlong Road, ST. ALBANS, VIC. 3021 Ph: (03) 8345-1681
Appendix G

Informed Consent
RESEARCHER:

I, Matthew Berry, certify that I have fully explained the aims, risks, and procedures of the research to the participant named herein (or to the lawful guardian of such patient) and have handed to the participant(or guardian) a copy of this Consent together with a PLAIN ENGLISH STATEMENT of aims and procedures of the experiment and any risks to the participant.

In my opinion the participant (or lawful guardian thereof) appears to understand and wishes to participate.

I undertake to the participant (or lawful guardian thereof) that the confidentiality and anonymity of the participant and his or her records will be preserved at all times.

SIGNED:.......................................................... DATE: .........................

CONSENT OF PARTICIPANT

The purpose of the above project has been fully explained to me and I have read the attached PLAIN ENGLISH STATEMENT. I UNDERSTAND the aims and procedures of the experiment and any risks to myself which are involved and I REQUEST to participate on condition that I can withdraw my Consent at any time.

SIGNED:.......................................................... DATE: .........................

WITNESS OF PARTICIPANT’S SIGNATURE

I, ..............................................................................................................................

of DAS West

as an independent witness confirm that the aims and procedures of the research and any risks to the participant has been adequately explained to the participant whose signature I witness. In my opinion he/she appears to understand and wishes to participate.

SIGNED:.......................................................... DATE: .........................
Appendix H

Self-Assessment Questionnaire
Motivation Group Quality Exercise

Age: ..........   Gender: M / F

Number of previous admissions to any D & A programme:
- 0
- 1-2
- 3-5
- 5-9
- 10 or more

What is your primary drug: ........................................

Would you say that you have used this drug regularly for
- less than 2 years
- 2-5 years
- 5-10 years
- more than 10 years

From 1 to 5, where 1 is lowest and 5 is highest, how would you rate:

1. Your overall motivation for change: ....
2. Your confidence at maintaining 3 months sobriety after this admission: ....
3. Your understanding of the role of motivation in changing an addiction: ....
4. The need to maintain sobriety after this admission: ....
5. Your desire to maintain sobriety after this admission: ....

Scores

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<td>Good Things</td>
<td>Bad Things</td>
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After the group:

From 1 to 5, where 1 is lowest and 5 is highest, how would you rate:
6. Your overall motivation for change:

7. Your confidence at maintaining 3 months sobriety after this admission:

8. Your understanding of the role of motivation in changing an addiction:

9. The *need* to maintain sobriety after this admission:

10. Your *desire* to maintain sobriety after this admission:

Please circle the number that best corresponds to how you now feel:

11. How would you rate your overall motivation for sobriety compared with before the group?

12. How would you rate your confidence at maintaining 3 months sobriety compared with your confidence before today’s group?

13. How would you rate your understanding of motivation compared with before today’s group?

14. How would you compare your need to maintain sobriety compared with before today’s group?

15. How would you compare your desire to maintain sobriety compared with before today’s group?
Appendix I

Motivation Workshop Handout
Motivation Group Programme

Motivation can simply be described as being the urge to do something. Without motivation we would just sit there on the couch for ever, not moving, or eating, or anything… ever! Are people with addictions more or less motivated than other people?

Motivation can be created by one or more of the following:

i) Physical sensations like pain or heat – the strongest
ii) Instinctual drives, like cravings, hunger or panic
iii) Emotions, like excitement, anxiety, anger or fear
iv) Thoughts, such as planning for the future – the weakest

Motivation has two qualities: strength or intensity, and direction or goal.

Motivation to change occurs when we are READY, WILLING and ABLE.

**Ready** - We are able to overcome our defensiveness & narrow-mindedness, and admit our problem. We are prepared to take an honest and open look at ourselves, and do whatever it takes to recover.

**Willing** – we believe that the reasons for sobriety outweigh the reasons to continue drinking/using.

These reasons can be thoughts, emotions, or instincts and they cause the balance to tip towards drinking/using, or sobriety. What usually happens is that the balance is constantly rocking from one side to the other: wanting to drink/use & wanting to quit. This is normal and is called Ambivalence.

Some of biggest things that commonly tip the balance in favour of drinking/using are CRAVINGS (a type of instinctual drive). However, by using craving management and prevention, you will no longer have to battle cravings so you can take them off the balance!

**Able** – to be able to sustain a change, we need to have access to the right sort of help to learn not only the tools needed to break the addiction, but also the skills to attain and maintain a happy, healthy and contented life in sobriety.

Remember, recovery doesn’t happen in the classroom. Rather it happens outside of group times, when you make changes by LEARNING, PRACTICING & APPLYING THESE SKILLS!
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Quit
Continue
It’s all a matter of Sticks and Carrots!

By moving all the ‘negatives of drinking’ into ‘positives of sobriety’, you have switched your reasons for changing from sticks [negative consequences of drinking/using] into carrots [the rewards of sobriety]. Both sticks and carrots motivate us to change, however they do this in different ways with different degrees of effectiveness.

Carrots are reasons that produce motivation by creating a pleasant emotional reaction in us. Sticks produce motivation by creating unpleasant emotions, such as fear or guilt.

Carrots are much better motivators than Sticks because carrots create the desire to change (wanting to change), whereas sticks create the need to change (having to change). Change is also much more enjoyable a process when it is being motivated by a carrot than by a stick. Think from your past how you prefer doing things you want to do, rather than things you have to do.

- We put less effort into the job when motivated by a stick, rather than a carrot.
- We tend to substitute other drugs when stick motivated, whereas carrots lead to sobriety.
- We’re more likely to lie, cheat or take short-cuts when motivated by a stick!
- We are much likely to procrastinate when motivated by a stick!
- We are more likely to search for excuses and ‘ways out’ when motivated by a stick!

Now copy all the things from column 3 on the previous page into this table.

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<tr>
<th>The Good Things About Sobriety (Carrots)</th>
<th>Importance</th>
<th>Confidence 1 to 3</th>
<th>Frequency M or L</th>
<th>Frequency (Medium 3 months) L</th>
<th>Self-Other Initiated</th>
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Carrots can be made all the more motivating by making sure that they meet the following conditions:

**Importance:**

Rank the good things about sobriety in order of how important they are to you. Things that are important to you create stronger emotions and therefore stronger motivation.

Be careful that your reasons for wanting sobriety must be things that are important to you, not things that are important to other people.

**Confidence:**

Assuming you manage to maintain sobriety, how confident are you that you’ll be able to achieve these reasons. Things that you are more confident about achieving will create more positive emotions and therefore create stronger motivation.

**Frequency:**

Scale these reasons in terms of how often you think about them. The more often you think about a reason, the more motivation it will create – simple!

Incorporate a visualisation of the your carrots into your 5x5 breathing exercise.

Write the reasons out on cards and stick them up around the house where you’ll see them to remind you, and each time you read them your motivation will increase. Plus, because they are all carrots, you’ll enjoy reading them, unlike sticks, such as the warnings on cigarettes which we block out!

**Short / Medium / Long Term**

Scale your reasons in terms of how long you reckon it will take for you to achieve them. For many people the reasons for changing are all short term, for some they are all long term, and for the others there is a mix.

Remember that once a carrot is achieved and becomes a part of your life, it stops creating those positive emotions, so each time you achieve one, you need to replace it with another!

**Self/Other Motivated**

We are often told that to succeed at maintaining sobriety, we must be doing this for ourselves and not others. This is because when it’s for someone else, like to make them happy, or so that they don’t see you drunk, then we are reliant upon them being there to create the motivation. Remember what happens if they are away for a few days – we lapse. However, when the reasons are for ourselves, we are always there, so the motivation always stays!

**Internal / External Control**
How much of this motivating reason is dependent upon stuff that I have control over, as opposed to things that are beyond my control? Some reasons, such as making your partner happy, are out of control, no matter how long you’ve been off drugs or booze! Try to pick reasons that are totally under your control instead!

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<tr>
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Appendix J

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Appendix K

Outline of Motivational Workshop
What is Motivation?
The session commences with participants being asked the question “what is motivation?”
The purpose here is to engage the participants following adult learning principles of self-discovery, rather than didactic education. Typical responses included ‘having goals’, ‘needing to do something’, ‘wanting to change’
Out of these responses two concepts are distilled and reflected back to the group. First, that motivation has a direction which can be towards or away from a perceived goal. Second, it is reflected back that they experience different levels of motivation. Therefore it is summarised that motivation can have strength and direction
The group are asked whether they believe that addicts as a group are more or less motivated than non-addicts. The answers vary, some saying more, others saying less. It is reflected back to the group that perhaps many addicts experience more volatile levels of motivation with higher peaks and lower troughs in their compared to the general population.
This point is illustrated with the example of a person addicted to a depressant drug such as heroin, cannabis, or alcohol. The person may have very high levels of motivation when in withdrawal, and conversely, have very low levels of motivation when intoxicated (some patients do report paradoxical effects to depressant drugs though, resulting in an increase in motivation, however this is often dose dependent). The opposite may be the case for people who use stimulant drugs such as caffeine, nicotine or amphetamines, whereby they can be highly motivated when intoxicated, but very unmotivated when in withdrawal (again, paradoxical effects may also be reported, for example in the case of dexamphetamine being prescribed to patients with Attention Deficit and Hyperactivity Disorder, in which case the stimulant drug actually decreases the patient’s overall levels of motivation.
In summary, it is suggested that people with addictions are in fact capable of very high levels of motivation, often above that experienced in the general population. However, the problem is that their motivation is pointing towards their addicted behaviour, rather than towards sobriety and improving their quality of life.
This dismisses the myth that people with addictions are unmotivated, rather they are extremely motivated at times, albeit towards their addiction

What creates motivation?
It is then posited to the group that the concept of motivation may be much broader than their initial examples suggest. To illustrate this, it is suggested that in fact motivation is needed for minor and seemingly trivial behaviours, such as going to the toilet, eating, and crossing one’s legs.
This then leads the discussion onto the group coming up with some more examples of things that can create motivation. The facilitator prompts the group if stuck with suggestions until examples of all of
the following four types of trigger have been identified: physical sensations (such as pain or temperature), instincts (such as panic or craving), emotions (such as gratification or anxiety), and thoughts (such as planning the day).

5 minutes
Consolidation of learning
The key points covered so far are reflected back to the participants.
1) Motivation is a prerequisite for any behaviour
2) Motivation has both strength and direction
3) Motivation can be triggered by physical sensations, instincts, emotions, and/or thoughts.

3

5 minutes
Changing the direction of motivation.
It is suggested to patients that, in fact, changing direction is not simply a matter of desire. Rather, three conditions need to be met in order to not only change the direction of motivation from substance use to sobriety, but also to be able to maintain this change in direction. These three conditions are to be ready, willing, and able.

4

15 minutes
What ‘being ready to change’ means in the context of addiction recovery.
The group is asked what is meant by ‘being ready to change’. A range of answers usually comes up, some of which overlap with the other conditions of change. However, typically several participants would directly or indirectly refer to the concept of denial. The term ‘denial’ is typically used in addiction to refer to a sufferer who is either not able to admit that their behaviour is out of control, i.e. an addiction, or minimises the severity of it, such as someone focussing on controlled drinking, or minimising how much work they will need to put into their recovery.
Denial is a very sensitive issue, and a patient in this state, when put under pressure about it, may respond by deepening their state of denial and therapeutically disengage from the programme. Therefore all such discussions are handled with care, with an emphasis placed upon denial not being a character trait or moral judgment, rather the inevitable consequence of developing an addiction.
Participants further down the pathway of their recovery commonly report that they were in this state for many years before being able to admit that they have a problem. A possible reason for this state of denial may be because it serves as a defense to a state of cognitive dissonance triggered by the ever growing need to change the substance-using Behaviour, competing against the person’s inability to change and regain control over that behaviour. However, whatever the cause, in order for the person to change they have to be able to admit that there is a problem that needs changing so they are then willing to learn the tools required to change.

5

15 minutes
What ‘being able to change’ means in the context of addiction recovery.
This third condition of change is discussed next, with participants being asked their thoughts on this matter. Those who have completed other parts of the programme already often recognise that addiction is differentiated from many other problematic
behaviours by cravings, which are its defining characteristic. These stem from different areas in the brain from ‘normal’ thoughts and behaviour, known in recover circles as ‘craving thinking’ and ‘sober thinking’ respectively, and require specific skills and knowledge for a person to be able to control them.

The discussion is steered to encourage the participants to suggest other skills that often need to be mastered in order for one to maintain the change into sobriety. Commonly suggested examples include not only skills to manage cravings, but also skills such as interpersonal skills, the ability to manage emotions, and stress management skills.

6 15 minutes  
**What ‘willing to change’ means in the context of addiction recovery**

The final prerequisite to be discussed was willingness to change. The facilitator talked about how motivation is somewhat like a seesaw, also known as a decisional balance. On one end are the reasons to maintain the status quo, and on the other end are the reasons to change. When there is a clear imbalance with a greater number of reasons on one end or the other, the seesaw tips and the person is motivated in that direction.

However, when there are approximately the same number of reasons on each end, the seesaw tends to rock back and forth. The group were informed that this is called ‘ambivalence’ and is in fact quite normal. They are asked how many of them identify with this feeling, which most or all usually do. They are then informed that one of the goals of this activity is to build up things on the ‘change’ end of their decisional see-saw so that it tips in favour of change, and, more importantly, remains tipped that way.

Because participants are often confused by the true meaning of ambivalence, it is useful here to differentiate it from ‘indifference’. In ambivalence their motivation rocks from wanting change to wanting the status quo, however in the case of indifference, they don’t care which way their motivation is directed.

5 minutes  
**Self-identified learning review**

Participants are asked each in turn what was the most significant thing that they learned this morning and why. This enables the group to recognise that every person is different and has a different perspective. It also provides the opportunity for peer-based learning, as well as the chance for participants to see the significance in aspects of the workshop that they may have deemed not relevant to their recovery by seeing how others have interpreted the material.

**BREAK FOR LUNCH**

10 mins  
**Consolidation of learning**

The material covered this morning is reviewed.

1) Motivation is a prerequisite for any behaviour
2) Motivation has both strength and direction
3) Motivation can be triggered by physical sensations, instincts, emotions, and/or thoughts.
4) To change the direction of motivation, and maintain that change in the context of addiction recovery three conditions need to be met.
5) The person needs to be ready to change, i.e. be open, honest, and realistic about their problem
6) The person needs to be willing to change, i.e. the reasons for change outweigh the reasons for maintaining the status quo
7) The person needs to be able to change, i.e. they need to have the tools to maintain change by being able to manage life as a happy contented sober person.

Participants are then told that the afternoon session will focus upon the notions of ambivalence and of willingness to change. They will explore how the types of reasons placed upon the ‘change’ end of the see-saw can influence the stability of their willingness to maintain sobriety, based upon seven dimensions along which their motivating reasons can be measured.

15 minutes

Illustrating strength of motivation and ambivalence
The group are asked to turn to page 2 of their handouts and are asked to write down a total of at least 12 reasons for and against change under the four columns on that page, being ‘Good things about drinking’, ‘Bad things about drinking’, ‘Good things about sobriety’, and ‘Bad things about sobriety’.

They are instructed to avoid using one word answers, such as ‘health’ or ‘family’ rather give specific examples of those things, eg ‘because my liver is in failure’ or ‘so I can spend time with my kids’. They are advised that there may be some overlap between things in two columns and that’s OK. They are also advised not to do it column by column, rather to think about the question, and as each reason arises, place it in the most appropriate column.

Participants are then asked to tally up the total number of reasons in each column and it is explained that the reasons in columns one and four are things that sit on the ‘don’t change’ end of their decisional see-saw, whereas the reasons in columns two and three were things that sit on the ‘change’ end of their see-saw (the bad things about drinking and the good things about sobriety). The group are also asked to add together the totals for Columns 1 and 4, and for Columns 2 and 3.

The group are then asked to share their ‘scores’, and it is reflected back that those who don’t feel motivated tend to have more things in columns 1 and 4 than in 2 or 3. Those who are feeling ambivalent find that there are a similar number of reasons in each of the two pairs of columns, and those who feel highly motivated have more things in 2 & 3 than 1 & 4.

This usually holds true for most participants however when it does not, either the participant has misunderstood the instructions, or they have one or more reasons that load much more heavily than others. This exercise does not take into account the different weights of particular reasons, or how those same reasons can vary in weight from day to day, or hour to hour. For example, ‘so my wife won’t leave me’ or ‘because I have liver failure’ would usually load more heavily than ‘because I’m embarrassing at parties when drunk’ or ‘because of the cost’. Furthermore, the relative weights of these reasons can often ‘lighten’ over time as the crisis is averted!
Participants are then advised that emptying things out of columns 1 and 4 is beyond the scope of today's activity, however they are strongly encouraged to speak to their counsellor about these reasons for no change.

25 mins

**Introducing sticks and carrots (avoidant and constructive reasons)**

It is then suggested to the participants that the things in column 2 and 3 both assist in motivating them towards sobriety, but a question is asked: ‘do these columns motivate you in a different way?’. They are asked not to respond just now, but instead, they are asked in turn to read aloud the first two reasons in their column two (the bad things about their substance use) and encouraged to be mindful of how they feel as they listen to one another. When asked at the end of the round how they felt, their responses typically included “I feel awful and guilty”, “I feel quite depressed”, or “I feel lousy”.

They are then asked how motivated to stop they now feel compared to before, and their reply is typically ‘less motivated’. When asked what their reaction would be to these emotions if they were experiencing them outside in their day to day lives, their typical reply is “it makes crave even more!”

Participants were then asked to repeat the exercise, but this time they should share the reasons in column three (the good things about sobriety). When asked how they feel afterwards, their responses typically include examples like “I feel more motivated”, “I’m looking forward to sobriety”, or “that makes it sound much more appealing!”.

In order to help them understand the differences in motivation produced by columns 2 and 3, an analogy was used with the participants. They were told that there are two ways to motivate a donkey across a stable; one is to hit it with sticks, and the other is to lay a trail of carrots. In the first case, the donkey will go in any direction, not necessarily the one you want. In the case of the latter, the donkey is motivated in the direction you want. In much the same way, when it comes to human behaviour, people can be motivated by threats (sticks, the bad things about drinking), or rewards (carrots, the good things about being sober). Column two on their worksheets lists their own personal sticks for change, whereas column three lists their carrots.

The group are then asked to explore the differences between ‘stick-based’ motivation (which, on the first motivational dimension represent avoidant motivators) and ‘carrot-based’ motivation (which represent constructive motivators). First, people seem to enjoy doing tasks more when they are motivated by carrots than sticks. Second, people may be more likely to procrastinate and put off the task when they are motivated by sticks than when motivated by carrots. Third, people report that they put less effort into a task when motivated by sticks than by carrots, and finally, they suggest that they are more likely to look for excuses to go back to their old behaviour when motivated primarily by sticks.

To summarise, it is suggested that stick motivators create the need
to change by means of physical, emotional or psychological discomfort, whereas carrots create the desire to change with the promise of physical, emotional or psychological reward. They are asked which types of reasons were active in their minds when they made the decision to come into treatment and overwhelmingly the response is usually the ‘stick’ motivators. They are then which reasons they are more likely to call upon for motivation when they have a craving or are struggling to remain sober, participants again usually respond with sticks rather than carrots. Again, when asked which of the two columns is longer the answer tends to be that column two is longer.

In keeping with the notion of sticks and carrots and the different ways in which they motivate, it is interesting that those participants who are further down their recovery and are more proactively motivated (e.g., they are having shorter lapses, are more open to treatment, and put their recovery high in their list of priorities) are the ones that tend to have the reverse, i.e. things in column 3 (carrots) than in column 2 (sticks).

They are then asked ‘why, if stick-based motivation is possibly less effective and certainly less pleasant than carrot-based motivation, why do we focus so much upon it, especially when we tend to procrastinate and put less effort in when motivated by sticks?’ The group usually takes this point on board and is quite relevant. There maybe several reasons suggested for this, however typically it is because the sticks in their life are very vivid and immediate, whereas the carrots are more distant. Another reason could be that when it comes to the motivating reasons given by other people such as family members, these are usually stick-based, not carrot based. Furthermore, many addicts report a family upbringing where there was primarily or exclusively stick based motivators governing their behaviour at home, rather than carrot based motivator.

To close this section, it is reflected back whether the group feels that solely carrot based motivation would be appropriate. Typical suggestions, especially from parents, are that humans tend to do best when motivated primarily by carrots, but with strong boundaries with sticks on the other side should they cross them. As a result, the group are advised that this afternoon’s session will focus upon choosing four carrots and one stick that they can use as their primary motivators for sobriety at this time.

### Planting sticks and reaping carrots

The group are next asked to look down their second column, their sticks, and choose the one reason that creates the strongest emotional reaction in them (and therefore the most motivating) and circle it. This motivator would be their one stick and they would put it aside.

Participants are then asked to convert the remainder of their sticks into carrots by reflecting them. For example, a stick of “it’s costing me too much money” could convert into the carrot of “being able to save up for a holiday”, or “I hate waking up feeling sick every
morning” could become “to wake up clear headed and full of life”, or “it’s is making my anxiety much worse” could become “to be calmer and more in control”.

They are asked to ensure that their carrots remain fully sweet and positive, so at no point should they allow the words ‘no’, ‘not’, ‘never’, ‘less’, or any negative words in column three, including those on their original list from the beginning of the afternoon session. For example “it makes me depressed” should not be converted into “it makes me less depressed” or “no longer depressed” because that is still quite negative sounding and may be motivating by creating negative affect, rather than positive affect. As a result “my mood and motivation will be higher” would be the preferable way for converting that stick into a carrot.

They may find that some are already in column 3 (for example, a participant may have ‘costs too much money’ in column 2 but already have ‘saving money’ on column three.

The group was then asked to copy their carrots into the first column on page 3 of their worksheet.

5 minutes

Consolidation of learning

Motivating reasons to change can be sticks or carrots. Sticks motivate by creating the need to change by means of physical, emotional or psychological discomfort, which may result in procrastination, half-hearted attempts, and opting out at any opportunity not to mention making the whole process unpleasant. Carrots on the other hand, create the desire to change with the promise of physical, emotional or psychological reward, making the process and it’s goal something to look forward to, rather than something to dread.

Best of all, people can use carrots most of the time, but keep a stick handy for incase you cross the boundary!

5 minutes

The importance of importance

The group are told that sticks versus carrots is just one way that we can measure motivating reasons. They are going to be exploring six other ways that this can be done, and just like sticks and carrots, by adapting your motivating reasons, it is possible to improve that particular reasons efficacy and weight on the motivational see-saw. First, the participants rank the motivating reasons with ‘1’ being the most important, in terms of how important they are to themselves, as opposed to their importance to other people. They are then asked why this is important to do, and it is reflected back that this was because the more important something is to you, the greater its potential associated emotion and therefore the stronger the motivation it will generate.

However if it is important to someone else, but not to you, it will not generate nearly as much emotion. For example, a doctor will typically motivate a patient based upon the health consequences of their behaviour, however if the patient does not place as much importance on their health, as, for example, their income, then income related motivators are likely to be more effective for that patient.
5 minutes  *The role of confidence*

The next dimension rated on the worksheet is the participant’s confidence that, assuming they remained sober, they would be able to achieve that particular motivating reason. For example, if the reason was ‘to have a better mood and be more motivated’, then how confident are they that assuming their remain sober they will have a better mood and be more motivated.

The participants rate each motivating reason from 1 to 3, where 1 is “very confident”, 2 is “fairly confident”, and 3 is “not very confident”. Participants are instructed to re-word any motivators that scored 2 or 3 in order to bring them up to 1. For example, if the motivator was ‘to have good self-esteem’ and scored a 3, by changing it to ‘to have improved self-esteem’ the person becomes more confident that they can achieve it.

It is reflected back to the group that people tend to be more motivated towards goals (in this case the goals are the individual motivating reasons) that they are confident of achieving, as opposed to goals towards which they have poor self-efficacy. The participants are asked to think back on their own experiences for examples of this in their own lives.

10 minutes  *The more you think about it, the stronger it gets*

The participants are next asked to rate each reason based upon how often that particular reason enters their mind. They should use either ‘M’ for reasons they think about more than once a day, and ‘L’ for reasons that they think about less than once a day.

Participants were reminded here that they may not be in the habit of refreshing their motivation for sobriety throughout the day. This is possibly because up until this workshop, their motivation was primarily ‘stick’ based. As a result, thinking of their motivating reasons would have aroused unpleasant emotions and therefore was something to be avoided.

To illustrate this point, the smokers are asked, “without looking, what is the warning on your current pack of cigarettes”. Very rarely will the smoker remember what the warning is, because tobacco warnings are all stick-based motivators, rather than carrots based motivators such as “non-smokers taste better when you kiss them” or “stopping smoking is equivalent to receiving a $6250 annual pay rise”.

If time permits the group is suggested to come up with a range of carrot based motivators for use in the stop smoking campaigns. However, now their primary motivators are carrots and are pleasant to think about, there is no need to avoid them, and the more that they think about them, the more motivation they will create.

A similarity here is drawn with affirmations, which many people report do not work. However, this is because many people just to read them blandly over and over again, rather than including the emotional component of the carrots as well. This is because emotions plus thoughts will create more motivation than thoughts on their own.

The participants are then put through a guided visualisation, during
which they were taught not only to breathe, relax, and say the motivating reason to themselves, but also to immerse themselves in it. They are encouraged to do this by imagining a scenario where they have now achieved the motivating reason (e.g. having saved up to be able to take the family away on holiday). They are encouraged to experience this scenario with all five senses, and try to maximise the intensity of the associated positive emotions. After this visualisation, they shared their experiences of that exercise, and compare their current levels of motivation with how they might have felt had they just read the motivating reason to themselves.

5 minutes

Consolidation of learning

To summarise, reasons have to be important to us, not others, because reasons that are important to us carry more emotional weight than reasons important to others. The reasons we choose have to be realistic so that we are confident that we can indeed achieve them. People are more motivated towards goals that they believe they can achieve. The more often you think about a motivating reason, the more motivation it will create. However, rather than just thinking about it, immerse yourself in the positive emotions that it creates as adding emotions to the thought serves to increase your motivation.

The effect of how far away a carrot is and what happens to motivation once you’ve eaten it

A participant is asked whether, hypothetically-speaking, she’d prefer to receive $5 today or $10 tomorrow? and again, $5 today or $20 next week? and again, $5 today or $50 in six months. Most people tend to respond that they’d rather the $10 tomorrow in the first example. However people start to shift in the case of the second example towards $5 today, and by the third example, most people tend to choose $5 today over $50 in six months. This illustrates the influence that future distance has on rewards, in so far as the further away the goal, the weaker its influence is upon current levels of motivation.

The analogy of getting a donkey out of a stable is again used here to help reinforce the sticks and carrots concepts. The group is asked what would happen if the donkey had a big pile of carrots right in front of it? The response is that the donkey would move to the pile but not out of the stable. The question is repeated but with a pile outside of the stable. The group usually responds that it may not see the pile. The group were then asked what is the most effective way of motivating the donkey out of the stable using carrots. They usually respond that it would be best to leave a trail of carrots. It is reflected back to the group that in recovery this is much the same. Too many carrots at the beginning will help you move, but not maintain that change. Rather, as each carrot is achieved (‘eaten’) it ceases to create motivation, so you have to be mindful that you are constantly recreating carrots. Participants are then asked to assess how near or distant are each of their motivating reasons. They rate each reason with an ‘S’
for short term, i.e. less than a month; an ‘M’ for medium term, i.e. one to three months; or an ‘L’ for long term, i.e. more than three months. They are then advised to review these reasons if they tend to be too many S or Ls, and furthermore, to be mindful of replacing each one as it gets eaten!

5 minutes

Where the motivation comes from makes a difference.

The group was then asked for their thoughts about one of the most common sayings in recovery ‘you have to do it for yourself, you can’t do it for others’, and why they think that is so important. Typical answers are quite vague and usually quite circular, based around the notion that it creates better motivation. However, when pressed, participants had difficulty explaining why this is the case. In order to illustrate this issue, a commonly-used motivator is read to the group: ‘my partner/kids hate seeing me drunk’. The participants agree that this is a common and strong motivator, however they are asked what could be potentially problematic with this motivator. After a while they usually realise, with a bit of prompting, that this motivator is dependent upon their partner or kid being around. However, when they are away, the motivating reason often evaporates the the person finds themselves with the desire to drink again. They then realise that although ‘so my partner doesn’t see me drunk’ is a very strong motivator, it is intermittent. However, changing it to ‘so I can be an honest and reliable husband/wife’ is more stable, as it is not dependent upon their partner being around. However, that doesn’t mean that other people can be still useful when creating motivation. It just means that it is risky if other people are the primary source of motivation. Programmes such as AA are successful for many reasons, however one of the main reasons is that they provide a reliable and accessible source of motivation. The group are therefore asked to rate their motivating reasons as being ‘O’ for ‘other’ if they are dependent upon someone or something else being around, or ‘S’ for ‘self’ if the reason still creates motivation when the person is on their own. If there are too many ‘O’s, especially from the main reason, then the participant is advised to convert them into self motivators. In much the same way as the example used above.

5 minutes

How much control do you have over your motivators?

The exercise then moved onto the exploring the sixth dimension, which assesses the person’s locus of control with regards to each motivating reason. The participants are advised that, in a similar way to the ‘confidence’ dimension, people are likely to have better and more enduring motivation when they have greater perceived control over the goal.

The participants are therefore asked to rate all of their motivating reasons, assuming they remain sober, as ‘I’ if it is mostly internal locus of control, and ‘E’ if it is mostly external. Any ‘E’s should be converted into ‘I’s or struck off the list where this is not possible. To illustrate this dimension take the following example of a common motivator ‘to regain my family’s trust’. If, assuming the person stays sober, there is no doubt that the family will trust him, then that
motivator would clearly be internal locus of control. However, if the person had a long history of addiction, then it is possible that in some cases the family will never fully trust him again, and therefore this would be more external, i.e. outside of that person’s locus of control.
As a result, participants are advised that motivators such as ‘to be a trustworthy person’, ‘to be an honest husband’ and so on are recommended over motivators such as ‘to be trusted by my family again’.

5 minutes  **Consolidation of learning**
To summarise the last 3 dimensions, it is essential that the person have a trail of carrots, rather than just one bunch right in front of them. Furthermore, as the person must be mindful that once a goal has been achieved, it becomes considerably less motivating. Therefore it is recommended that on a weekly basis they review the carrots for sobriety.
Reasons that are self-initiated rather than initiated by others are more consistent. However other people also valuable to create motivation. As a result, it is recommended that both are included, rather than a reliance on motivators created by other people.
Finally, the motivating reasons and goals are best when they are within the person’s locus of control.

**Group exercise**
Once this workshop has been completed, with each motivating reason being subjected to all seven dimensions, all participants were asked to read aloud to the group their two most important motivators. Whilst doing this, they should imaging how they would feel achieving each motivator. After everyone had shared, the group was asked how they feel, and comments such as ‘much more motivated’, ‘inspired’, ‘excited’, ‘very different’ and ‘much more positive about the future’ are typical.

**Grounding exercise**
To finish, the participants are asked to take the four most important reasons from this list, along with their one stick (the motivator they earlier circled on page 2 column 2) and copy them across into the boxes provided on page 5. Here, they spend the remainder of the session illustrating each reason with either a picture, or words, or a song, or an incident, or anything else that epitomised the essence of what was meant by that motivator.
They are also advised that it is best to write down the 5 motivators and stick them up around the house or keep a copy in their wallet to regularly review, replacing any that expire.

**Closing Comments**
Participants are again asked each in turn what was the most significant thing that they learned this workshop and why. This enables the group to recognise that every person is different and has a different perspective. It also provides the opportunity for peer-based learning, as participants to see the significance in aspects of the workshop that they may have deemed not relevant to their recovery by seeing how others understand the material.
Appendix L

Transcript of Focus Group
Transcript of focus group

What was the most important aspect for you of today’s workshop and why?

#5 I’d have to say the motivational aspect, carrots as opposed to sticks

Why are carrots important to you as opposed to sticks?

Well, it’s my recovery basically, they’re there so that I can achieve what I came in here to do, to give up substances and start a life without the need for them.

Why is learning about carrots and sticks as opposed to other aspects of addiction, why has that helped you?

Because I don’t necessarily have to be beating myself up. It’s much easier to go for incentives I suppose as aside from beating myself up for an addiction.

So you are talking about the experience of the process of recovery?

The carrots? Absolutely it has helped me.

#3 same question, what was the most important aspect from today’s workshop and why?

#3 Learning how to apply different aspects of the carrots and sticks towards my life. Things that I’d taken for granted my whole life in training the animals I’ve trained… horses and dogs and had used that same approach to teach them right and wrong things. If I’d realised I’d applied it to myself instead of beating myself up every time I have had a drink and think about why I shouldn’t be drinking rather than why I should be sober, I found that very important.

So if you’d applied to the animals the training philosophy that you have applied to yourself, what would the outcome be?

They’d be resentful, they’d be negative towards me, cower towards me. They wouldn’t respect me, they’d come to me but with no respect and no love. There’d be no love there, it would be just a very cold relationship between me and my animals.

#1 same question, what was most important aspect and why?

#1 Carrots and sticks for sure. It just makes things so much more positive for my recovery. Instead of looking back on the negative of my recovery, I can now look at the good things of when I am in sobriety, and so consequently I can utilise those in a much more positive way, whereas before I have always had the fear in regards to my getting sober. Whereas now, I feel confident in the respect that I can go ahead, use my tools, write down my carrots, work it out and work out my goals for the week.

So you are saying sobriety was something that you were afraid of?

Very much. I am saying that I loved sobriety, um, but I’ve found um, the bad things were just so negative and I never looked at the good things of sobriety, if you understand what I mean.
#2 How do you think that this workshop is going to help you in your recovery?

#2 I tend to think in pictures, so the carrots and sticks thing will help me because that’s how I think. And just the positives and negatives that came out of today. And the motivational side?

What can you see being different now?

I can look at the notes and what I’ve learned and you know, realise that I need big bags of carrots!

#4 Same question. How do you think that this workshop is going help you in your recovery?

#4 Um, I think for me, I’ve had quite a lot of sobriety over the past year, and the times that I have busted, I’ve gone into it, I’ve used the sticks as this is what’s going to happen to me, I’ll suicide, I’ll do this, I’ll do that, or whatever, I’ve used those instead of carrots. I have used some of them before, but generally the sticks win out. Maintaining the carrots for me and ensuring the long term carrot goal things that we worked on, because for me my sobriety is not going to happen overnight, it’s a journey that I’ll be on for the rest of my life. And it’s something that I think also, to sit down and for 5 minutes visualise how you would be on one of those carrots, where you see yourself, so that you have a bigger picture of the good. I already know what the bad is, but I need to picture what the good is.

#6 Same question. How do you think today’s workshop is going to help you in your recovery?

#6 I think that the main thing I got from the carrots and stick analogy in terms of not putting a whole bunch of carrots at the first hurdle, rather spreading them out so that you have goals, and visualisation and setting a timeline for the things you’d like to achieve in a realistic timeframe. And it was so, um, prioritising what you are hoping to achieve and put that into an achievable timeframe.

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Did anyone find one of the other dimensions, importance, confidence, etc, more important than sticks and carrots? #2? Were sticks and carrots the most important dimension, or were one of the other six most important?

#2 One of these other six, because it gave me goals to achieve and made me prioritise what I want.

So you talking about short, medium and long term dimension?

Yes.

#3 I had the same dimension, it was probably as important as sticks and carrots, as I’ve failed in the past because I didn’t keep renewing my goals. I had all my carrots, but I didn’t continually upgrade my carrots. I had my long term, but I didn’t keep stocking up my short terms ones as well. Once I finish them I need to renew that stock of short term ones.
#1 Sticks and carrots were fantastic to me but I found that the importance one gave me areas I should work on and where my priorities are, and I’m happy with the layout that I had done with my priorities. So that gave me extra thinking. And also with the internal and external I found that um I feel I can confidently go ahead with that.

#6, what was your most important scale?

#6 Self or other initiated, as important as sticks and carrots. Self or other initiated is important because it as far as I’m concerned, would be an indication of how much I’d regained in terms of confidence and controlling anxiety and my ability to function. If it was self orientated the indication of how successful the discussion has been.

#5, which scale was most important?

#5 I’d have to say self/other. Actually, I’m going to change that, internal/external, basically because for me it’s acknowledging basically what I can do internally in terms of managing my own anxiety and the other issues I have been battling in the past. So what I have the ability to change internally in order to move forward.

#4 Definitely sticks and carrots were most important, and after that, I’d probably go with the length (time frame) short medium and long mostly because it’s just being real in the sense that I know that for instance, self-esteem is not a short term thing for me and it’s something I’ll have to work on and the longer that I stay sober the more I will build my self-esteem and self-worth. And the other one was the internal/external because it actually made me aware of the things that perhaps I rely upon others for, rather than myself, and that’s a big one for me because I always seeking approval, but really when it came down to it, most of it was internal.

What, if anything in today’s workshop may have helped you understand where you may have gone wrong in your past attempts to change? #4

#4 In my past attempts I am repeating myself, but for instance, I busted only the other day on Friday after quite a long period of sobriety, and then I busted again on Monday, because of the amount of sticks I had I was building a bonfire basically, and I had no carrots. But I do have carrots in my life but I wasn’t looking at the carrots, I was looking at the stick. That to me I had to turn that around and really put it into my life like I was saying before. I’ve a lot of hope this year but I seem to have lost my faith, and just pointing out the carrots has started to rebuild those carrots again. I’m generally feeling positive because when you bust a couple of times you generally go back the other way. I came back into rehab because I’d lost my hope and couldn’t afford to lose my hope. The carrots equal hope or faith for me.

#6 What if anything from today’s workshop helped you to understand where you may have gone wrong in your past attempts to change?

#6 Um, first and foremost would be the idea that I might be able to give up drinking and completely become sober now and at a later stage start drinking at a more moderate level. I now understand that it is highly unlikely that that’s achievable. The second thing was after having detoxed myself a couple of times my inability to manage cravings I was not able to avoid getting down to the bottle shop. I probably think that taking it on as one large problem and not separating the issues and putting in a logical structure and formal in degree of
importance, and then putting in achievable timeline in place to step by step manage the problem.

#1 what if anything from today’s workshop helped you to understand where you may have gone wrong in your past attempts?

#1 I had 10 months sobriety, and it’s definitely sticks that do come into it and consequently, because of the sticks, the fear of god comes because of all the bad things, and um, I don’t concentrate on the sobriety, I concentrate on the sticks and so um, it just builds up and up until crisis point and now I feel like I have a clearer picture and I’ve got goals and strategies I can work out through the sticks and carrots and through the other parts of the motivation approach.

#5 I just wanted to say that the sticks and the carrots programme it’s a tool that I’ve learned um, it’s basically given me the knowledge that how I’ve been thinking, how I’ve been behaving in general, in the past, with substance abuse, it’s given me a different perspective. I believe that following this and utilising this as a tool, one of many that I’ve learned here so far, sobriety is an obtainable and something I believe I can manage utilising this tool.

#2 I just agree with number 5, and all the positives of sobriety that we touched on and the negatives.

#3 can I have the question again please?

what if anything from today’s workshop helped you to understand where you may have gone wrong in your past attempts?

#3 I feel I went wrong in my past attempts that, I managed to stock up my carrots, I had them when I left here before, managed 3 months sobriety, um, but failed to restock my carrot supply up, then I tended to go for the stick more so that for the next carrot which seemed too far away for me to grasp and not continually restocking my cupboard with short term carrots. I pretty much recognise that as where my failings went and led to my cravings taking control of me through my lack of motivation and so on.

#6 The other thing which occurs to me about the carrot and stick analogy, I don’t know that in the past I’ve actually even made the distinction between a carrot and a stick in so far as I’ve never really sat down and identified what sort of steps I was taking to control. Were they carrots or were they sticks. I don’t think that up until today I realised what a carrot was and what a stick was, in terms of looking at how to approach managing the alcohol situation.

In terms of previous treatment programmes that you have done, where has the emphasis been in terms of carrots and sticks? 1,4,5,6 sticks, 2,3 carrots and sticks.

#1 I have never heard of carrots and sticks until today. It is just incredible for me to learn it this way I just learned so much.

So had any of the other programmes had exercises to differentiate carrots from sticks and actually brought your attention to the difference? 1, 2 shakes their heads. 3 hasn’t, 4 from her last admission to this rehab, 5 and 6 shake their heads.
What if anything specifically will you be doing differently after today’s workshop?

#3 I’ll be making sure that I review my carrots and sticks on a weekly basis and continually review my bookwork that I’ve learned from here to keep my tools sharp that I’ve learned in here instead of letting them sit in the cupboard like I did previous times after I start to feel confident that I’m travelling alright. I feel now that there’s a need to keep that stock replenished.

How will you know if this motivational stuff is working for you?

I’ll be sober.

And what would you do if it doesn’t work for you?

I’ll tend to introvert yourself and isolate away from other people when I start to lose my motivation.

Do you think that a follow up booster session would be useful?

Absolutely essential, without a shadow of a doubt.

#4 What if anything specifically will you be doing differently after today’s workshop?

#4 I’ll be focussing upon carrots. I mean I think I like to keep it simple because I think it’s the better way for me to go because my head goes a million miles an hour. So just focussing on the carrots and doing the meditation type exercise of imagining the carrots is probably the way to go, and when I have the times when I’m starting to get a bit resentful, try and put the meditation into action immediately to try and think of the good things rather than the stick that I normally imagine.

How will you know if it is working for you?

Because I’ll probably be eating a carrot along the way.

And what would you do if it doesn’t work for you?

I suppose I’d just keep trying really, because I think I believe that this is the correct way to go without a doubt, so I don’t think that the main thing for me is that I have been desperate, I go to AA every day and do all the right things, but my sticks recently have been building up and I’ve really hated myself and I think the carrots are about loving yourself and being responsible and sharing and being with people and dignity and all the good things that everyone wants with their life.

Do you think that a follow up booster session would be useful?

Yes I’m sure it would. I think with this sort of thing for me being an alcoholic it’s easy to forget things and become complacent. I try to put everything in but there’s a lot of things that I do in my recovery to try and keep me sober, so I think that anything like this, which is a really important tool, is worth repeating again, and then repeating again later on down the track again. I mean its hard, everyone gets complacent, that’s the thing and I think it’s really
important. I think as alcoholics we… I forget and think “I’m OK, I’m OK, I’m fantastic I’m well” and I’m not. And as I say it’s a journey and it’s like a life-thing, it’s not just a ‘I’ll be OK for the next six months on my sticks and carrots’ it’s not like that – I would always need the sticks and carrots idea in my head.

**#5 What if anything specifically will you be doing differently after today’s workshop?**

**#5 By continuing to evaluate and implement goals so that once I’ve attained one goal, I can then set another so that I have continuous goals.**

**How will you know if this motivation work is working for you?**

Can you repeat the question?

**How will you know if focussing upon sticks and carrots is actually benefiting you and making your life better?**

Growth… internal growth. Being able to face situations I might not have been able to face or chose not to face in the past. I would recognise that I would be progressing and re-evaluate the sticks and I was going to say stones… (laughs)... sticks and carrots analogy basically.

**And what would you do if you find yourself not growing?**

I would be likely to contact (the clinic) and talk to somebody. I actually would implement a craving response plan. Go through the eight steps, um. Do I need to mention those? (no) I would seek help if I didn’t feel as though the sticks and carrots method wasn’t working, if I wasn’t working, if I didn’t feel that it was benefiting me, if I felt I was regressing I would be seeking help from the clinic.

**Do you think that a follow up booster session would be useful?**

Absolutely essential for me. Just to reinforce, to get a better understanding, a clearer clarity about it. Reinforcing what I’ve already heard today. Yeah.

**#6 What if anything specifically will you be doing differently after today’s workshop?**

**#6 I think trying probably to , to make sure I fully understand the concept of the carrots and sticks, formulating a comprehensive list of the things which I’d like to achieve in the near future, probably I’d set my goals in the six, maybe 12 months, certainly the next six month. Yeah, and trying to get a timeline together to meet the goals.**

**How will you know if the sticks and carrots stuff is working for you?**

I guess I’d be able to measure that by seeing if um I was reaching forward for a goal in a positive way, rather than being driven by fear of a negative outcome in a bad procrastinated, as opposed to making positive steps to reach a goal rather than being pushed through fear of a negative outcome.

**Do you think that a follow up booster session would be useful?**
Absolutely. It would be a very easy thing in day to day life being busy with other things let alone managing alcoholism to let it drift off and perhaps lose focus or just forget about it totally, so I think um, it’s like lots of things in life, you need to sit down and a follow up would be essential to just keep up your goal.

#1 What if anything specifically will you be doing differently as a result from today’s workshop?

#1 Well, to start with I’ll be going back and revising over my work. And I shall be adding some further things to my list and work my sticks out to what I feel that they should be, and I shall be working on my carrots and my goals and revising my goals each week, but if I find with my goals, something is going amiss, then I will ask for help because so I can get back into the carrot scene again, and um, because I’ve got bipolar as well, I really have to work on my carrot side of things and the depression, and looking to the sticks a bit but not too much.

How will you know if this motivation work is working for you?

I’ll have no fear to start off with. I’ll be back to myself, who is quite a nice person. I’ll be motivated. Seeing how I had ten months of sobriety and then I slipped and then slipped again, I would gain, um, I’d say, just being the person I used to be.

Do you think that a follow up booster session would be useful?

I’d have to because I’m not the most intelligent person at times, and I do need to… that’s why I take notes and that’s why I revise, I definitely will need a follow-up session.

Memory is not the same as intelligence...

Thank you. And also, I’ll be seeing lots of carrots myself, at home, and I’m looking forward to your book coming out (laughs)

#2 What if anything specifically will you be doing differently as a result from today’s workshop?

#2 Definitely going over the notes, like, constantly, because that’s one thing I don’t do when I leave rehab. I take home a folio of notes and leave them aside. I’ve had 2 weeks sobriety in four years. This makes much more sense than the other rehabs that I’ve had before, its’ something that I can really understand, I can use the pictures in my mind instead of words, and I’ll probably add a lot more to the carrots side and the sticks side.

How will you know if this motivation work is working for you?

I will know within myself, I’ll be myself again, I’ll be the person that I used to be four year ago, (what will be gone) depression, unhappiness, low self-esteem, anxiety.

Will a follow up booster session would be useful?

Definitely, yes, definitely.

Thank you all very much.