THE RELATIONSHIP BETWEEN READINESS TO CHANGE, DECISIONAL BALANCE AND SELF-EFFICACY AMONG SUBSTANCE ABUSE PATIENTS

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Abstract

Substance abuse and its related risk behaviours feature among the greatest threats to public health. Despite the advances made in interventions for addictive behaviours in the last two decades, there continues to be a high rate of recidivism among substance abusers. While many factors contribute to recidivist rates, an important part of treatment success is the motivation or readiness of the patients to change their addictive behaviours. Significant work in understanding the process of change has emerged from the health promotion literature in the form of the transtheoretical model of change (TTM). While the model comprises several dimensions, its core constructs centre on stages of change, i.e., behavior change occurs through a series of stages. Individuals in treatment could then be at various stages of change, which would enhance or limit the effects of the treatment. An individual decision to change is also affected by an evaluation of the pros and cons of change. The self-efficacy to change constitutes a third element for successful change to occur. Using a cross sectional survey design, this study explored the relationship between readiness to change, decisional-balance and self-efficacy in a sample of 88 inpatients at a public treatment facility admitted for alcohol and other drug use. The results showed that patients were indeed at various stages of change. Thirty-nine percent of inpatients were not ready to change, 43% were in the preparatory stage of change, and less than a quarter (18%) of inpatients was ready to change. Pro decisional-balance was an important predictor of readiness to change. Further research tailoring treatment programmes to readiness to change among substance abuse patients is suggested.

Keywords: readiness to change, self-efficacy, decisional balance, motivation

Acronyms

CSIR	Council for Scientific and Industrial Research
DB	Decisional Balance
DBscale Con	Decisional Balance Con
DBscale Pro	Decisional Balance Pro
GSE	General Self-Efficacy Scale
NIMSS	National Injury And Mortality Surveillance System
PDBS-R	Psychotherapy Decisional Balance Sheet
RTC	Readiness To Change
SACENDU	South African Community Epidemiology Network On Drug Abuse
SEScale	Self-Efficacy Scale
SOC	Stages Of Change
SOCRATES	Stages Of Change Readiness And Treatment Eagerness
TS	Taking Steps
(TTM)	The Transtheoretical Model

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CHAPTER ONE: INTRODUCTION

Substance abuse and its related risk behaviours feature among the greatest threats to public health worldwide. In fact, problems caused by the excessive consumption of alcohol and drugs constitute one of the most serious health and socio-economic problems facing post-apartheid South Africa (Parry & Bennets, 1998). In particular, substance abuse has been associated with intentional or unintentional injuries, criminal behaviour, violence, psychiatric and physiological ailments and more recently, in the transmission of STD's and HIV/AIDS.

In South Africa, specialist treatment facilities exist at both an inpatient and an outpatient level, to treat people with addictions to alcohol and other drugs. These services are provided mainly by social workers, as well as nurses, doctors, and community health workers. A review of the existing sentinel surveillance data, monitoring substance abuse trends in South Africa reveal that treatment demand for alcohol-related problems remains high, although treatment demand for substances other than alcohol has also increased over time. In addition, poly substance abuse remains high and is increasing (Plüddemann, Parry, Bhana, Harker, Potgieter, Gerder, 2003).

Results from a recent sentinel surveillance study conducted within inpatient and outpatient specialist treatment centres in 5 regions South Africa, viz., Mpumalanga; Durban, Gauteng, Port Elizabeth and Cape Town, reveal that alcohol continues to be the most dominant substance of abuse, accounting for (69%) of admissions in Mpumalanga, (64%) of admissions in Durban, (52%) of admissions in Gauteng, (46%) of admissions in PE and (44%) of admissions in Cape Town. Cannabis and mandrax (methaqualone) alone or in combination also show high levels of usage, ranging between (18%) to (23%) in Durban, Gauteng and Mpumalanga. In Cape Town and Port Elizabeth, the cannabis-mandrax combination, accounted for (20%) of the patients in Cape Town and (30%) of patients in Port Elizabeth (Plüddemann, Parry, Bhana, Harker, Potgieter, Gerder, 2003). Despite, evidence of high levels of poly substance abuse, alcohol still remains the dominant substance of abuse for individuals entering into treatment.

While substance abuse, specifically alcohol abuse, has always been associated with an older population, recent statistics from the South African Community Epidemiology Network on Drug Abuse (SACENDU) has revealed that drug abuse among youth is on the rise (Plüddemann et al., 2003). The survey showed that in the Durban area, approximately (27%) of patients in treatment programmes were below twenty years of age. In addition, results reveal that while the numbers for those seeking treatment has increased, the age of first time treatment is declining. Similar findings were common across all five sites in the study, including Gauteng, Cape Town, Port Elizabeth and Mpumalanga and Durban (Plüddemann et al., 2003). The long term outcomes of early substance abuse is also reflected in a recent national survey on drug use and health in the United States of America, which found that early alcohol use increases the likelihood of developing alcohol abuse or dependence at a later age (Grant & Dawson, 2004).

Substance abuse, of course, also has other impacts, most notably on unintentional injuries and criminal behaviour. The CSIR in conjunction with the Department of Transport studied substance abuse among professional drivers. They found that (4%) of the 400 drivers at various points on National roads and at various times of the day tested positive for alcohol (Mynhardt, 2003). The Medical Research Council's Crime and Violence and Injury Lead programme's National Injury and Mortality Surveillance System (NIMSS) was used to assess alcohol-related mortality for 2002. In Durban about one third and in Cape Town approximately half of all non-natural death cases tested for alcohol had blood alcohol levels above the legal limit. The study also revealed that transport related deaths was correlated with high levels of alcohol usage, with roughly 6 out of 10 drivers and pedestrians in Cape Town having levels above the legal limit (Matzopoulos, Seedat, & Cassim, 2003).

In light of the threat that substance abuse and related risk behaviours pose to public health at various levels, most efforts have been concentrated on treating individuals for substance abuse, particularly alcohol abuse. Yet, despite the advances made in interventions for addictive behaviours in the last two decades, there continues to be a high rate of recidivism among substance abusers (Sitharthan & Kavanagh, 1990).

Specialized treatment centres, even when subsidized by the state are costly. Hence, high recidivism rates are especially problematic amongst this population, notwithstanding the other social costs of individuals with continuing problems of substance abuse. Therefore, increasing the levels of participation and treatment compliance among inpatient substance abusers is an important public health goal, particularly for the prevention of relapse (recidivism), as well as the prevention of crime, death and illness associated with alcohol and substance use. Reducing recidivism rates would therefore be an important goal in itself. One way in which such a goal could be achieved is to examine the change process for those who see treatment for substance abuse.

Significant work in understanding the process of change has emerged from the health promotion literature, most often in relation to changing behaviours such as cigarette smoking. A widely used theoretical model to explain behaviour change is the Transtheoretical Model of change (TTM). While it comprises several dimensions, it centres on the core constructs called the stages of change. The basic tenet of this model is that as people change, they go through a series of stages. These stages include the Pre-contemplation stage, (no intention to change the behaviour in the foreseeable future), Contemplation stage (considering change in the foreseeable future), Preparation stage (intending to change in the foreseeable future and have a specific plan to change the intended behaviour, Action stage (actively engaging in changing the behaviour), and Maintenance stage (sustaining the change and preventing relapse), (Prochaksa, DiClemente & Norcross, 1992). Progress from one stage to the next is not necessarily linear, but cyclical and individuals may relapse into an earlier stage and then re-enter the cycle at any stage before changing their behaviour. Among substance abuse treatment patients, this model can provide a useful evaluation of their readiness to change their substance abuse behaviour and will help to explore the various factors that impact on their decision and readiness to change.

Despite the commitment by practitioners, researchers and other health care workers to the treatment of and rehabilitation of substance abusers, very little is known about the motivation, and readiness of the patients themselves to change their addictive behaviours.

Furthermore, previous research has made several assumptions that individuals in treatment are ready to change or at least close to changing their behaviour. In part, this may be because patients in treatment for substance abuse have not been assessed on several key socio-cognitive and emotional factors, which could potentially account for behavioural change processes in treatment. While there are a number of factors that account for compliance with treatment and recidivism rates, theoretically three key factors have been identified as important to an individual's readiness to change. The three factors, which will be the focus of this study, include motivation and readiness to change, decisional balance and self–efficacy.

Overcoming addictive behaviours, such as, alcohol and substance abuse poses a significant challenge to dependents and professionals alike. Literature on admission to treatment centres reveal that the decision to seek treatment may be influenced by a variety of external factors, ranging from legal or family pressure to financial reasons. Under these external pressures, individuals may not be wholly ready or motivated to participate actively in changing their addictive behaviour (Tsoh, Rossi, & Prochaska, 1998). Patients who present at treatment centres may therefore be at varying levels of motivation to engage with the programme and change their addictive behaviour. Consequently, they may be reluctant or ill prepared to change their behaviour. Motivation to change is thus thought to be a key-influencing factor, affecting change within the context of this study. Recognizing that inpatients may be at varying levels of readiness to comply with treatment and make the required behavioural changes may therefore have important implications for how intervention and treatment messages are designed and conveyed.

The decision to change is also a significant factor related to successful treatment. An individual's decision to change often includes consideration of the pros and cons of changing one's behaviour. Derived from Janis and Mann's model of decision-making, decisional balance reflects an individual's relative weighting of the pros and cons of changing behaviour (Janis & Mann, 1985). The theory holds that individuals make decisions after careful consideration of the instrumental gains and anticipated losses for

themselves and others. Therefore, evaluating the pros and cons of engaging in behaviour change, may be particularly relevant in assessing an individual's readiness to change and motivation, as well as the impact of this decisional balance on their progress along different stages of change. In particular, inpatients' relative weighting of the pros and cons of behaviour change, may impact significantly on their decision-making during the early phases of treatment. Applied to a treatment context, intuition may suggest that patients in the earlier phases of treatment, pre-contemplation, contemplation, and preparation would be likely to rate the disadvantages of being in therapy much higher than patients in the action or maintenance stages of treatment. Such hypotheses can be usefully combined with the concepts of motivation and self-efficacy in understanding how inpatients change their addictive behaviour.

In addition to non-readiness to participate in treatment, and ambivalence regarding the potential benefits and losses associated with behaviour change, inpatients may also lack the self-efficacy to carry out a desired behaviour. Self-efficacy refers to the belief in one's capabilities to organize and execute the sources of action required to manage prospective situations (Bandura, 1986). Several studies have examined the relationship of self-efficacy and behaviour in the context of health-related behaviours (De Vries, Dijkstra & Kuhlman, 1988; Dijkstra, De Vries & Bakker, 1996; Majer, Jason, Ferrari, Olson & North, 2003) and Schwarzer & Fuchs (as cited in Conner & Norman, 1995). The majority of these studies have examined the role of self-efficacy in avoiding drinking or substance use situations. However, there is a paucity of studies both internationally and locally examining the role of self-efficacy in entering and complying with treatment. The present study aims to fill in this gap in the literature.

Readiness to change is believed to impact on treatment outcomes. In addition, measurement of patients prior to entering treatment may also help in screening patients who would most benefit from treatment. However, the relationship between these variables is not well understood. This study aims to determine the nature of the relationship between motivation, self-efficacy and decisional balance and readiness to change addictive behaviour. In doing so, the study aims to use the Transtheoretical Model

of change (TTM) in exploring the concepts of motivation, decisional- balance and self-efficacy in understanding the substance abuser's behavioural change.

The objectives of the study are to assess the patients'

a) stage of change upon entering the treatment facility
b) level of self-efficacy upon entering treatment.
c) readiness to change upon entering treatment.
d) relative weighing of the pros and cons of entering treatment (decisional balance)

It is hypothesized that:

1. Inpatients will show varying levels of readiness to change their addictive behaviour.
2. High scores on readiness to change will be positively correlated with decisional balance and self-efficacy.

The specific sub-hypotheses are:

a) High scores on pre-contemplation and contemplation will be negatively correlated with self-efficacy
b) High scores on action and maintenance will be positively correlated with self-efficacy
c) High scores on pre-contemplation and contemplation will be negatively correlated with decisional balance
d) High scores on action and maintenance will be positively correlated with decisional balance.

CHAPTER TWO: LITERATURE REVIEW

In recent years South Africa has experienced an increase in the rate of alcohol-related problems. This is due in part to the fact that there have been changes post-apartheid, in the global and local drug markets which have resulted in an increase in the availability, accessibility and affordability of alcohol and illicit drugs (Parry, 2000). With the advent of democracy and an opening up of society, including its physical borders, South Africa has experienced an unprecedented flow of drugs from countries to the north of the continent and from Asia. This flow of narcotics traffic is both as a transshipment route to Europe and the USA, but also to create new markets in South Africa. The local manufacture of drugs such as mandrax (methaqualone) methamphetamine and its variants (TIK) has spiraled in recent years. As a consequence, treatment demand for hard drugs such as crack, cocaine and heroin has increased.

International literature points to the benefits associated with substance abuse treatment, including, a reduction in alcohol and drug abuse, a reduction in criminal behavior and violence and an improvement in physiological and psychiatric health. (McKay & Weiss, 2001; Daley, Argeriou, McCarty, Callahan Jr., Shephard & Williams, 2001). In addition, a treatment centre provides an ideal context in which readiness to change can be examined, as the mere presence of individuals at a treatment centre, though not necessarily synonymous with readiness to change, does provide an indication of an individual's decision to take some action regarding their behaviour, whether under duress or voluntarily. A treatment centre therefore presented itself as an ideal context in which readiness to change could be examined in the present study. While much of the data on readiness to change has emanated from studies conducted within treatment populations internationally, there are very few studies that examine readiness to change within a local treatment context. Therein lay the motivation for this study to be conducted within a treatment context.

Specifically, motivation to change, decisional balance and self-efficacy have been given scant attention. This study aims to shed light on this neglected area of research in the field of substance use interventions. In order to achieve these aims, this chapter is

structured as follows: The first section will present the Transtheoretical Model of Behaviour Change (TTM) (stages of change model) to understand an individual's readiness to change their addictive behaviour (Prochaksa, DiClemente & Norcross, 1992). Examples of empirical studies to which the theory has been successfully applied will be examined.

Thereafter the concept of motivation, thought to be a key determinative factor in the process of behaviour change, will be examined. Several empirical studies, that have examined the relationship of motivation in the context of health-related behaviours, will then be reviewed.

The decision to change is also a significant factor related to successful treatment. The concept of decisional balance will therefore be explicated in this section. The section presents the theoretical framework underpinning the concept of decisional balance, together with a review of the empirical studies, which apply the theory of decisional balance to several health related behaviours, including addictive behaviours. Finally, a detailed discussion of the concept of self-efficacy is presented, followed by a review of the empirical evidence linked to the concept of self-efficacy.

2.1 The Transtheoretical Model of Behaviour Change (TTM)

The view that behaviour change occurs over time, rather than as one distinct event, though not entirely new, is certainly one of the less well-understood aspects of health promotion. In general terms, the phenomenon of change has often been viewed as an event or outcome rather than a process. Many previous theories typically viewed change as equaling action and success was only measured if someone had stopped smoking or abusing substances. However, change should be seen as a process rather than an outcome that occurs over time. As a result of this limited view of what constitutes change, the difficulties and challenges experienced by individuals who are expected to change is often overlooked.

In keeping with the view that change is a phenomenon that occurs over time, the TTM, (Prochaska, DiClemente, & Norcross, 1992), also referred to as the stages of change model, views behaviour changes as a process and not an event. It therefore provides a useful framework for understanding an individual's readiness to change their behaviour. The model has been applied to a variety of problem behaviours such as smoking (Prochaska & DiClemente, 1983; DiClemente, Fairhurst, Velasquez, Prochaska, Velicer & Rossi, 1991) weight control (Prochaska, Velicer, Rossi, Goldstein, Marcus, Rakowski, 1994) and exercise (Marcus, Rakowski & Rossi 1992).

The basic tenet of the TTM is that as people change, they go through a series of stages. These include Pre-contemplation, (no intention to change the behaviour in the foreseeable future); Contemplation (considering change in the foreseeable future); Preparation (intending to change in the foreseeable future and have come up with a specific plan to change the intended behaviour; Action (actively engaging in changing the behaviour) and Maintenance (sustaining the change and preventing relapse), (Prochaska, DiClemente & Norcross, 1992).

The model provides a useful framework for assessing what stage the individual may be in, with regard to readiness to change. Progress from one stage to the next is not necessarily linear but cyclical and individuals may relapse into an earlier stage and then re-enter the cycle at any stage before changing their behaviour. Among substance abuse treatment patients, this model can provide a useful means of assessing their readiness to change their substance abuse behaviour and will help to understand the various factors that impact on their decision and readiness to change. It is very likely that despite being part of the same treatment intervention, patients will be at different stages in terms of their readiness to change their problem behaviour.

2.2 Motivation to Change Behaviour

Motivation to change can be usefully combined with the TTM in understanding a key factor in influencing health behavioural change. Motivation refers to the causes, considerations, reasons and intentions that move individuals to perform certain

behaviours or set of behaviours (DiClemente, 1999). Because the decision to enter into treatment for substance abuse is a critical and oftentimes trying one, (Donovan, 1988), motivation is critical in the process of recognizing the need for change, seeking treatment and achieving sustainable change (DiClemente, 1999).

In recent years, there has been growing interest among researchers and practitioners in understanding the various influences on substance abusers to enter and comply with treatment programmes and increase successful outcomes. Such interest has resulted in various studies examining the role of motivation in yielding successful treatment outcomes (DiClemente, 1999; Gerder & Holmberg, 1999; DiClemente, Bellino & Neavins, 1999; Vik, Culbertson & Sellers, 2000).

Reasons for admission to treatment are manifold, ranging from legal or family pressure to financial reasons. Patients who present at treatment centres may therefore be at varying levels of motivation to engage with the programme and change their addictive behaviour. In part, this is due to that fact that there may be various reasons how and why people enter treatment, ranging from voluntarily seeking treatment to improve the quality of their lives to being forced or coerced (either by family/friends, the legal system or their employers) to seek help for their addictive behaviour. A study by Anglin (1988) reveals that over half the people referred to community-based drug treatment are coerced into treatment by the criminal justice system and are classified as coerced clients. Thus many inpatients may just be going along with the programme and may not be whole-heartedly complying with treatment. Similarly, many patients enter treatment under pressure from other people, including family, friends, or their employers (DiClemente, Bellino & Neavins, 1999). Consequently, they may be reluctant or ill prepared to change their behaviour. On the other hand, a study conducted by the Institute of Medicine (1990) indicates that the primary motivation for seeking treatment may be prompted by a situation/s which presents itself to individuals as threatening or negative. Therefore, many patients entering treatment programmes may not have voluntarily chosen to enter into a treatment facility (Carroll, 1991). Under these external pressures, individuals may not be wholly ready to participate actively in changing their addictive behaviour.

Previous research has found that once these external forces and pressure are removed, the desire for drug use usually returns (De Leon, 1988; Washton, 1989). One would assume that patients coerced into entering the treatment facility are likely to be in the pre-contemplation stage of change while patients who are self admitted would be at least at a contemplation or preparation phase in terms of their readiness to change their addictive behaviour (Tsoh et al., 1998). It is therefore critically important to understand how pressure from external forces influences patients' willingness to change their problem behaviour.

A common assumption is that individuals who enter the treatment facility are ready to or at least close to changing their behaviour. Even treatment messages are structured in a manner that assumes that patients entering treatment programmes are ready to take immediate action to change their problem behaviour. In fact, most substance abuse treatment programmes and self-help initiatives are designed to work with patients who are ready to take action and change their addictive behaviour (DiClemente, Bellino & Neavins, 1999). However, the reality is that patients admitted to treatment centres may be variously motivated to comply with treatment. The common assumption that an inpatient's presence at a treatment centre is synonymous with readiness to quit their addictive behaviour may be misguided.

In their substance abuse behaviour studies on the stages of change model, Prochaska, DiClemente & Norcross (1992) classify individuals into different stages in terms of their readiness to alter their substance use behaviour. Consequently, individuals who are de-motivated to change their substance abuse behaviour will be classified as pre-contemplators in terms of readiness to change (Prochaska et al., 1992). In order to move from pre-contemplation to a contemplation stage, patients must recognize their problem and be motivated to change such behaviour. This theory is consistent with evidence which emerged from a study which found that for patients in the earlier phases of change who resolved an alcohol problem on their own without formal treatment aid, over half of the recoveries were due to the individual's cognitive evaluation of the pros and cons of continued drinking (Sobell, Sobell, Toneatto & Leo, 1993). It is against this backdrop

that the type of treatment they receive can harness their motivation and commitment to change.

DiClemente et al. (1999) view motivation to change as an integral dimension influencing compliance and sustainability of behaviour change and separate it into two levels, internal and external motivation. Internal motivation (stemming from within the individual) appears to be more successful for long-term change, while external motivation (prompted by external factors) seems to promote short-term abstinence from substance abuse. Therefore, greater understanding of how the dimension of motivation (at both levels) functions to influence behaviour change is key to designing appropriate treatment messages for patients.

Within health promotion, behavioural intention is linked to the dimension of motivation as a predisposing factor to behaviour change. The presence of inpatients at treatment centres does not necessarily imply that those individuals are ready or even close to changing their behaviour. The intention of these individuals to change is another factor that is required if compliance with treatment programmes and sustainable behaviour change is to be expected.

The Theory of Reasoned Action pioneered by Azjen & Fishbein (1980) points to the critical role that an individual's intention has to play in determining behaviour change. This intention is viewed as a function of two determinants, viz., the person's attitude toward performing the behaviour, and based on the personal beliefs about the consequences of the performing the behaviour, the perceptions of the social norms exerted to perform the behaviour. Together, they make up the personal determinants of behaviour.

Theoretically, personal determinants influence the decision to change substance abuse behaviours. At the outset, the patient must have the intention to change their behaviour either prior to entering treatment or upon entering treatment. It may well be the case that patients entering treatment do so under pressure from others and in fact, personally have

no intention whatsoever to perform the desired behaviour. In such cases, treatment programmes should be structured in a manner that provides brief motivational intervention to patients to enhance their intention to make sustainable behavioural changes. In addition, the patient may need to have certain attitudes in place regarding treatment and rehabilitation in order for behaviour change to be facilitated. As an example, the patient must believe that treatment programmes are beneficial rather than detrimental to them. Patients who have negative attitudes toward treatment are less likely to be motivated to change and may have little or no intention to do so.

2.3 Decisional Balance

The decision to change is also a significant factor related to successful treatment. An individual's decision to change often includes considerations of the pros and cons of changing behaviour. Derived from Janis and Mann's model, of decision-making, decisional balance reflects an individual's relative weighting of the pros and cons of changing behaviour (Janis & Mann, 1977). It holds that individuals make decisions after careful consideration of the instrumental gains and anticipated losses for themselves and others, Mann, (as cited in Prochaska et al., 1994), and that the gains and losses in the decision making process can be categorized into four major types of consequences:

a) Utilitarian gains or losses for the self
b) Utilitarian gains or losses for significant others.
c) Self-approval and disapproval.
d) Approval or disapproval from significant others.

However, after empirically testing the model, only two critical dimensions were found to be particularly significant to behaviour change, viz., pros and cons of the behaviour in question. Both these dimensions, (pros and cons) of behaviour change have become critical constructs in the Transtheoretical Model of Change. Prochaska et al. (1994) posit that the consideration of the pros and cons for changing behaviour is particularly relevant to the early stages of change, that is, pre-contemplation, contemplation and preparation. They and others have found that this decision-making process is related to an individual's

likelihood to participate in lifestyle change behaviours, such as quitting smoking (Velicer, DiClemente, Prochaska & Brandenburg, 1985; Dijkstra, De Vries & Bakker, 1996), weight loss (O'Connell & Velicer, 1988) and condom use (Lauby, Seeman, Cohen, Leviton, Gielen, Pulley, Walls & Campo, 1998). Prochaska, Velicer, Rossi, Goldstein, Marcus et al. (1994) also propose a predictable pattern of how the pros and cons of making a decision relate to the stages of change. They posit that in the pre-contemplation stage, the cons of changing a behaviour outweigh the pros. In contemplation, the weighting of pros and cons is relatively equal. In the advanced stages, i.e., the action and maintenance stages, the pros for changing behaviour outweigh the cons.

In the context of substance abuse behaviour, this will mean that patients who are not intending to change their behaviour in the foreseeable future (pre-contemplators) are more likely to rate the cons (losses) of being in treatment more highly than patients who are actively engaging in changing a behaviour (actors). In support of this hypothesis, a study investigating the impact of decisional balance on 12 problem behaviours reveals that, the pros for smoking were significantly higher for subjects in the pre-contemplation and contemplation phases, than they were for subjects in the preparation and action phases. For all 12 behaviours, subjects in the action phase rated the cons of changing the behaviour lower than subjects in the contemplation group (Prochaska, 1994). Prochaska, (1994) also investigated the generalization of the TTM across 12 problem behaviours. They found that for all 12-problem behaviours, the cons of changing the behaviour outweighed the pros for subjects who were in the pre-contemplation stage. For subjects in the action stage of behaviour change, the opposite was true.

In the context of patients in treatment for substance abuse, evaluating the pros and cons of engaging in behaviour change, may be particularly relevant in assessing their motivation and readiness to change and, as well as the impact of this decisional balance on their progress along different stages of change. In particular, inpatients' relative weighting of the pros and cons of behaviour change, may impact significantly on their decision-making during the early phases of treatment, i.e., pre-contemplation,

contemplation and preparation. A study by Carey, Purnine, Maisto & Carey (2002) also points to the critical role that the decisional balance construct can play in validating the distinctions among the stages of change. In particular, inpatients' relative weighting of the pros and cons of behaviour change, may impact significantly on their decision-making during the early phases of treatment, i.e., pre-contemplation, contemplation and preparation. Applied to a treatment context, one may hypothesize that patients in the earlier phases of treatment, pre-contemplation, contemplation, and preparation would be likely to rate the disadvantages of being in therapy much higher than patients in the action or maintenance stages of treatment.

However, a conflicting finding reveals that negative consequences due to drinking, e.g., accidents, unprotected sex, spread of diseases and substance use related illnesses, which should be sufficient to deter people from drinking, in fact has very little effect on their willingness to change their drinking behaviour. In a study on readiness to change, heavy drinking among college students, results reveal that despite the many negative consequences due to drinking, over (83%) of these heavy drinkers either were not considering a reduction in drinking or were not willing to commit to change. Therefore, negative consequences alone may be insufficient to promote a change in drinking behaviour (Vik, Culbertson & Sellers, 2000). Treatment staff and programmes may thus need to maximize opportunities to enhance clients' motivation and self-efficacy in order to reduce drinking/substance use.

2.4 Self-Efficacy to Change Behaviour

In addition to variable levels of motivation to participate in treatment and ambivalence regarding the potential benefits and losses associated with behaviour change, inpatients may also lack the necessary efficacy to carry out a desired behaviour. Self-efficacy refers to the belief in one's capabilities to organize and execute the sources of action required to manage prospective situations (Bandura, 1986). In the present study, self- efficacy is viewed to be a relevant determinant of behaviour change. The concept of self-efficacy has its roots in socio-cognitive theory (Bandura, 1986). According to the socio-cognitive

theory, human motivation and action is part of a complex three-way relationship between learners, their environment, and their self-regulating process of efficacy (Gredler, 1992).

This process involves three types of expectancies: (a) situation-outcome expectancies, in which consequences are cued by environmental events without personal action. (b) Action-outcome expectancies, in which outcomes flow from personal action and (c) Perceived self-efficacy, which is concerned with people's beliefs in their capabilities to perform a specific action required to attain a desired outcome (Schwarzer & Fuchs, 1995). Bandura (1986) points to the importance of personal mastery expectations of an individual regarding a desired behaviour. According to Bandura (1977) a person's confidence in their ability to perform a given behaviour is strongly related to actual ability to carry out that behaviour. In studying the effect of self –efficacy on behavioural change, Bandura differentiates between outcome expectancies and perceived self-efficacy. While outcome expectancies refer to the "perceptions of the possible consequences of one's action, perceived self-efficacy pertains to a personal action control or agency" Bandura, A. (as cited in Schwarzer, 1992 p 355). Outcome expectations consist of an individual's belief about the consequences of a given behaviour. Self-efficacy, on the other hand, refers to a person's expectation about whether or not they think they are capable of carrying out a particular behaviour (De Vries, Dijkstra & Kuhlman, 1988). It is, in essence, a person's judgment of whether or not they think they possess the necessary skills to carry out a desired behaviour.

Marlatt, Baer & Quigley (1994) also propose five categories of self-efficacy that are related to stages of motivation and prevention, pertaining to addictive behaviours:

- Primary and Secondary prevention
    - Resistance self-efficacy
    - Harm-reduction self–efficacy

- Self-change Treatment, Treatment and Relapse Prevention
    - Action Self-efficacy
    - Coping Self-efficacy

- Recovery Self-efficacy

Resistance self-efficacy refers to confidence in the ability to avoid substance use prior to first use. It refers to a person's ability to resist the temptation to engage in drinking or drug taking at all. Harm reduction self-efficacy refers to confidence in the ability to reduce the risk after having become involved with tobacco or drugs, such as smoking or drinking in moderation. The above- mentioned types of self- efficacy relate to prevention of addictive behaviours and are therefore not suited to the aims of this study and will not be further interrogated here. Action self-efficacy refers to the confidence to attain a desired abstinence goal. Coping self-efficacy refers to anticipatory coping with relapse crises. Recovery self-efficacy, closely related to coping self-efficacy taps different aspects within the maintenance stage. For the purposes of this study, only Action self-efficacy will be given attention, given that the focus of the study is on individuals who are newly admitted to treatment.

Social-cognitive theory Bandura, (1986) has made a significant contribution to the understanding and prediction of behavioural change. In particular, the concept of self-efficacy has been studied as a predictor of sustained response to interventions for a range of problems, including cigarette smoking (Sitharthan & Kavanagh, 1990). A number of studies have examined the relationship of self-efficacy and behaviour in the context of health-related behaviours (De Vries, Dijkstra & Kuhlman, 1988; Dijkstra, De Vries & Bakker, 1996; Majer, Jason, Ferrari, Olson & North, 2003; Schwarzer & Fuchs (as cited in Conner, & Norman, 1995). Sitharthan & Kavanagh (1990), who studied the role of self-efficacy in predicting outcomes from a programme for controlled drinking found that self-efficacy has an influential role in maintaining behavioural change. While many studies have examined the role of self-efficacy in avoiding drinking or substance use situations (Marlatt & Gordon, 1985; Martin, Rossi, Rosenbloom, Monti & Rosenhow, 1992; Sandahl, Linberg & Ronnberg, 1990) and others have established the role of in predicting outcomes (Annis & Davis, 1988; Burling, Reilly, Molzen & Ziff, 1989) there is a paucity of studies both internationally and locally that examine the role of self-efficacy, and self-mastery in entering and complying with treatment.

Among much behaviour, such as exercise, phobias, etc, which has been studied in connection with the concept of self-efficacy, smoking self-efficacy has provided the best evidence in relation to stages of change. A consistent finding is that pre-contemplators and contemplators scored the lowest and those in the maintenance stage scored the highest on self-efficacy (DiClemente, Prochaska & Gibertini, 1985). Within the stages of change model, research has emphasized the importance of self-efficacy expectations for moving people to action in general (Schwarzer, 1992). Thus, an individual can move from pre-contemplation via contemplation to action and then to maintenance. Yet this is a cyclical process, whereby individuals can relapse and re-enter the cycle at any stage. Applied to substance abuse treatment compliance, this implies that during the pre-contemplation stage, inpatients do not even consider quitting and moreover, may not believe that they have the ability to do so.

Recent studies on smoking cessation have confirmed the differences in attitudes and self-efficacy for pre-contemplators, contemplators and actors. Pre-contemplators were found to have had a more negative attitude toward quitting than contemplators, but the group did not differ in their low self-efficacy levels. Actors have significantly higher self-efficacy levels than pre-contemplators and contemplators (De Vries & Backbier, 1992). In addition, others have found that people in the action and maintenance stages have higher self–efficacy than people in the pre-contemplation stage (Prochaska, Velicer, Guadagnoli, Rossi & DiClemente, 1991).

Taken in its most basic form, the concept of self-efficacy implies that if a person believes that they can take action to resolve a problem that they have, they become more inclined to do so and feel more committed to this decision. Applied to substance abuse behaviour change for patients in treatment for addiction, self-efficacy, which refers to the degree of confidence a person has in his/her ability to negotiate high-risk drinking/substance use situations in healthy and skillful ways, has predicted drinking behaviour over time (Annis & Davis, 1988). An important question, however, is whether self-efficacy is a significant influence in an inpatient's compliance with the treatment programme?

Understanding the process of behaviour change requires an exploration of the influences of several psychosocial and emotional factors. In doing so, three factors, readiness to change and decisional balance, and self-efficacy, which will be the focus of this study, are examined in the following chapters.

CHAPTER THREE: METHODOLOGY

This chapter provides a description of the design, the sample characteristics, details of the measures used and the method of the study, including ethical considerations.

3.1 Study Sample

Using a cross-sectional survey design, a convenience sample of 88 inpatients, (n=80 males and 8 females) housed at a public substance abuse treatment centre, in the Durban area, was recruited into the study, over a period of six weeks. All participants individually consented to participate in the study, after being briefed on the ethical controls of the study. Inclusion criteria included the presence of an acknowledged problem with alcohol or substances, and formal inpatient admission into the treatment centre. The sample, (91%) male, (9%) female, was predominantly single, and had a mean age of 25.5 years. The ages ranged between 14 to 56 years of age. Eighty eight percent of the sample had at least secondary school (predominantly) or tertiary education and (12%) had no/primary school education. Three of the respondents did not indicate their educational status. In respect of employment status, less than half (42%) of the sample were unemployed, (36%) were employed, (22%) were students. Four respondents did not indicate their employment status. With regard to population group distribution, the majority of the sample comprised African males (41%), followed by Asians (39%), Coloureds (14%) and Whites (6%).1 Two respondents did not indicate their population group.

Historically and currently, males outnumber female admissions to drug treatment centres. Drawing upon the data gathered by the South African Community Epidemiology Network on Drug Use (SACENDU) over a six year period (January 1999 to June 2003) it is found, that the gender profiles of substance abusers and treatment seekers has remained

[1] The terms "White, Black, Indian/Asian and Coloured" originate from the Apartheid era. They refer to demographic markers and do not signify inherent characteristics. They refer to people of European, African, Asian and mixed (African, European and/or Asian) ancestry respectively. Their continued use in South Africa is important as accurate user profiles assist in identifying vulnerable sections of the population and in planning effective prevention and intervention programmes.

unchanged, with males outnumbering females for both drug and alcohol abuse as well as for substance abuse treatment. The population profiles of treatment seekers in the Durban area reveal an average of (86%) of males versus (14%) of females seeking treatment for substance abuse (Plüddemann et al., 2003). In the current study, (91%) (n=80) of those admitted for substance abuse are males. As has been found in a number of studies that examined the varying needs and motivations of male and female patients admitted to drug treatment centres significant differences exist between male and female patients being treated for substance abuse, (Kassebaum, 1999). Given that there were only eight women in the current sample, they were excluded from further consideration. On the other hand, White men, although also in the minority, were, in most cases retained based on gender. However, in cases where analysis was conducted based on ethnic group and when there were very small expected cell frequencies, they were excluded and only African and Asian males were considered in the analyses.

In addition, an inpatient treatment facility was chosen on the basis that a population of individuals, exposed to a standardized treatment program, over the same period of time and under similar conditions would minimize the extraneous variables that an outpatient facility could potentially introduce into the study. Furthermore, the paucity of local treatment-based studies examining the concepts of motivation, self-efficacy and readiness to change among substance abusers lends itself to the importance of conducting such a study within a local treatment facility.

The treatment centre is a state-funded centre, which tends to cater mostly for low middle-class to middle class populations. The ratio of White patients to Africans patients in private treatment centres will vary dependent on the cost of treatment. However, given that the state subsidizes most treatment facilities to varying degrees, including privately run organizations, the client background of these facilities is likely to vary greatly.

In terms of marital status, the majority, (63%) of the inpatients in this sample, was single, i.e., they were not married and were not living in a non-married intimate relationship or were never married. Twenty-three percent indicated that they were married either in a

civil/traditional arrangement and living with their spouse or living in a non-married intimate relationship. Eight percent were married, but not living with their spouse or were divorced. The remaining (6%) indicated living in a marital arrangement not listed above. One respondent did not indicate their marital status.

Most inpatients that receive treatment for substance abuse enter via a variety of referral sources, viz., their employers, the hospitals, health professionals, and religious groups. However, the predominant source of referral for this sample was, self-referred (voluntarily chose to enter into treatment), or referred by family or friends, (56%), followed by various legal and social agencies (36%), health professionals (2%) and employers, (6%). One respondent did not indicate referral source. (Table 1)

Table 1: Demographic Profile[2]

	n	%
Ethnic Group		
Black	32	41
Asian	30	39
Coloured	11	14
White	5	6
Educational Status		
No education/Primary	9	12
Secondary/Tertiary	68	88
Employment Status[3]		
Employed	27	36
Not Employed	32	42
Student	17	22
Marital Status		
Married/intimate relationship	18	23
Single (i.e., were not married and not living in an intimate relationship or were never married)	50	63
Married not living with spouse/divorced	6	8
Other	5	6
Referral source		
Self/family/friends	44	56
Social/Welfare/Courts/Correctional Services	28	36
Health Professional/Hospital/Clinic	2	2
Employer	5	6
Source: Newlands Park Centre, 2003		

[2] Unless otherwise specified, the numbers of cases in the various tables do not always add up to 80 because of missing data.
[3] The percentages for employment status include students as they form part of the treatment cohort.

Table 2: Treatment History

	n	%
Previous Treatment		
Yes	21	27
No	57	73
Source: Newlands Park Centre, 2003		

The rate of first time admissions in this sample was (73%) versus (27%) of the patients who indicated having received previous treatment.

3.2 Measures

While the Transtheoretical Model (TTM) takes cognizance of the external influences, such as peer and family pressure, or biological influences on behaviour and behaviour change, it focuses significantly on the intrinsic influences, viz., emotions and cognitions that impact on decision making to change behaviour. Hence, the model relies heavily on self- report as an accurate measure of intention to change behaviour (Velicer, Prochaska, Rossi & Snow, 1992). Accurate measurement also requires that there be little distortion or ambiguity in the way the items are phrased and posed to the participants (Velicer et al., 1992). In keeping with this suggestion, the following measures were used in this study.

3.2.1 Demographic Data

Demographic information including age, gender, marital status, education, and employment status as well as other information relating to treatment (referral source, and type of treatment received, treatment history) were collected by means of a demographic questionnaire. These variables were examined in relation to dynamic variables such as stages and processes of change. The demographic survey questions are presented in Appendix A.

3.2.2 Stages of Change Readiness and Treatment Eagerness

The original SOCRATES is a 20-item inventory developed by Prochaska, DiClemente & Norcross, (1992) to assess the stage of readiness to change among drug-using populations. The scale was originally used to measure the constructs of the Stages of

Change model identified by Prochaska and DiClemente, (1983) namely, pre-contemplation, contemplation, determination or preparation, action and maintenance.

However, factor analytic studies with alcohol dependent subjects (Miller & Tonigan, 1994; Isenhart, 1994) revealed only three empirically derived scales: ambivalence, recognition, and taking steps to change. Based on the findings a revised SOCRATES scale comprising 19 items (Version 8) was developed by (Miller & Tonigan, 1996). This is the scale that is used in the current study. Individuals are asked to rate readiness to change their alcohol and drug use along a 5-point Likert scale ranging from strong agreement to strong disagreement (Strongly Disagree, Disagree, Unsure, Agree, and Strongly Agree).

The measure has been shown to have adequate levels of internal and test/ retest reliability, as well as construct and criterion validity (Miller & Tonigan, 1994). Psychometric analyses revealed the following psychometric characteristics of the 19-item SOCRATES scale in clinical settings: The figures in brackets indicate the range of Cronbach alpha values obtained for the various subscales, Ambivalence (.60 - .88); Recognition of the Problem (.85 - .95); Taking Steps (.83 - .96) (Miller & Tonigan, 1996). However, it should be noted that internal consistency estimates for the ambivalence scale were found to be generally low in their validation studies. A low reliability value was also obtained on the ambivalence scale (r=.23) in the current study. Feedback from the respondents suggested that the wording of the items might have been confusing with regard to the word "wonder" in item 2 of the Readiness to change scale, which reads, "Sometimes I wonder if I am an alcoholic or an addict," or item 6 of the same scale, "Sometimes, I wonder if my drinking or drug use is hurting other people." This is often used to indicate ambivalence. A reliability alpha value of (.76) was obtained for the Recognition of the Problem subscale and (.71) for the Taking Steps subscale.
Given that the items of the ambivalence subscale did not impact on the overall reliability of the SOCRATES scale (not surprisingly), these items were retained to make up the final scale for part of readiness to change to enable closer comparison to other studies that have also used the SOCRATES scale. An overall reliability alpha of .83 was

obtained for this scale in the present study. The SOCRATES is presented in Appendix B. Most often the SOCRATES is used in correlation analysis with other scales such as Decisional Balance and Self-Efficacy as well social support. Since the SOCRATES is meant to be used with clinical groups only, the raw scores for Recognition of the Problem and Taking Steps subscales was plotted against the decile scores obtained on a sample of 1726 adult men and women presenting for treatment of alcohol problems (Miller & Tonigan, 1996). This permitted the computation of high or low scores on these subscales.

3.2.3 Decisional Balance Scale for Treatment

The decisional balance scale for treatment is a 15-item measure, which assesses individual's relative weighing of the pros and cons for entering substance abuse treatment. It was adapted from a shortened version of the revised Psychotherapy Decisional Balance Sheet (PDBS-R) (Penny, 1988). On this scale, participants were asked to rate the relative importance of each statement related to their decision to enter treatment on a 5-point Likert scale (ranging from not at all important to very important.) The Pros component consists of eight items representing positive consequences of entering treatment, while the Cons dimension consists of seven items reflecting the negative consequences. Participants are required to answer this questionnaire, such that their weighing of the pros and cons of changing their drug and alcohol behaviour becomes clear. Based on the current sample, the Decisional balance scale showed acceptable reliability coefficient alpha of .73. The decisional balance scale is presented in Appendix C.

3.2.4 General Self-Efficacy Scale

The General Self-Efficacy Scale (GSE), a 10-item self administered scale is used to assess a general sense of perceived self-efficacy, i.e., whether an individual perceives himself/herself to be taking on and dealing with problems and difficulties in the normal course of life. In essence, it reflects confidence in one's own capabilities, with the aim of predicting coping with daily hassles, as well as adaptation to stressful life events. Among the stressful life events, self-efficacy has been examined in relation to, phobias, smoking,

death, depression, and weight loss. Responses to the items are made on a 4-point scale ranging from not at all true to exactly true.

In a study sample of 23 nations, Jerusalem & Schwarzer (1992) obtained Cronbach alphas ranging from .76 to .90, with the majority in the high .80s. Jerusalem and Schwarzer also report criterion-related validity from the 23-nation study in which self-efficacy correlated with favorable emotions, dispositional optimism, and work satisfaction. Negative coefficients were found with depression, anxiety, stress, burnout, and health complaints. Based on the current sample, the internal consistency coefficient alphas for the self-efficacy scale fell within the very acceptable range of .84. The general self-efficacy scale is presented in Appendix D.

With the advent of democracy and the opening up of society, health care systems have been faced with the challenge of servicing a growing and culturally diverse population accessing treatment facilities. Research on treatment demand has revealed that population groups who were unable to access these facilities previously, have improved dramatically in recent years, Myers, Parry, Plüddemann (in press). In addition, staff more representative of the country's demographics has been employed in treatment centres, creating a better understanding of the treatment needs of diverse populations. The sample used in the present study reflects this diversity, with most living in urban areas, and who had predominantly completed a secondary school education. The administration of the survey was done in English, as most respondents were familiar with it as a primary or secondary language.

3.3 Procedure

Following approval by the institutional ethics committee, the researcher obtained permission from the management of the treatment facility as well as it directorate, i.e., the Department of Social Welfare and Population Development to undertake the study. Study participants were recruited into the study as soon as they completed the detoxification process, i.e., a few days after admission. Thereafter, over a five-week period, 88 inpatients housed at the public treatment facility were recruited to participate in the study.

All patients were in the same phase of treatment and were being housed in the same section, i.e., the rehabilitation hospital. The total length of stay in treatment for the inpatients at this facility ranges from was 28 days to 3 months depending on the severity of the addiction. However, in the current sample all the patients were set for a period of 28 days. This indicates that inpatients in the current sample were similar in terms of assessed level of addiction.

Meetings were held with a new cohort of inpatients on a weekly basis, during the time when they were not involved in their own treatment programme. During these meetings the researcher introduced herself, stated affiliations, and explained the nature of the study. Patients were informed that the research was concerned with understanding the various influences on inpatient substance abusers readiness to change their alcohol and drug use behaviour. It was also explained that the research project was a course requirement. Participants were informed that they were not compelled to participate in the study and that participation was voluntary and that they would not be prejudiced in any way, should they decide against participating. Participants could also withdraw from the study at any point should they so wish. They were also informed of the confidential nature of the study, including the fact that no staff from the treatment facility would be involved or have access to any of the completed questionnaires. All results that would be reported would be in the form of group results. Following acceptance to participate in the study, they were asked to sign a consent form before completing questionnaires in a meeting room at the treatment centre. Participants who did not give consent to participate in the study were allowed to leave the research meeting room. No individual names or other identifying details, save that listed above were requested. The raw data and computerized data files were, at all times under the control of the researcher and her supervisor.

Following the collection of all of the data, participants were debriefed regarding the actual intent of the study with full disclosure of the variables of interest. The researcher also enquired from the participants as to the ease with which the questionnaire was

understood and dealt with questions that arose from their experience of the research process. The informed consent form is presented in Appendix E.

3.4 Analysis

First, univariate and bivariate analysis was done on the demographic characteristics of the sample. The association between demographic variables and readiness to change, decisional balance and self-efficacy was analysed through the Chi-square statistic. Bivariate correlational analysis was also used to determine the relationships between the self-efficacy, readiness to change and decisional balance scales. Finally, these variables are entered into two multiple regressions to examine the predictive value of readiness to change subscales as dependent variables in relation to self-efficacy and decisional balance and specific demographic characteristics as independent variables. Variables which had (10%) or more missing data were excluded from analysis. The same rule was applied to the variables where multiple responses are possible.

CHAPTER FOUR: RESULTS

This chapter describes the type and frequency of substances abused, including a profile of abuse according to age. It also reports on patients beliefs of the likelihood of the treatment programme helping them deal with substance use behaviour. Next, readiness to change, decisional balance and self-efficacy scales are examined in relation to each other using descriptive statistics. Thereafter, the Chi-square statistic is used to examine the association between key demographic variables and readiness to change, decisional balance subscales and self-efficacy. Thereafter, bivariate correlational analyses were used to determine the relationships between variables (such as, readiness to change, self-efficacy and decisional balance), including key demographic variables. In order to determine the predictive value of the subscales of the Readiness to Change (RTC), two separate hierarchical multiple regressions were run with the components of decisional balance, self-efficacy and key demographic variables, viz., coercion and educational status. NB: Given that there were only eight women in the sample, they were excluded from further analysis. While, the number of White males was also small (n=5), they were retained in the sample save for analyses where ethnic group was used as a discriminating variable.

4.1 Results: Type and Frequency of Substance Use

While inpatients reported using cannabis, mandrax alcohol, crack, ecstasy, heroin, over the counter medication and prescription medication, Table 3 below reveals that at the treatment centre in question, patients reported using cannabis most frequently, i.e., everyday and few times a week. However, when the use categories of 'everyday and few times a week' are combined, it is apparent that the three major substances of abuse are alcohol (54%), cannabis (73%) and mandrax (67%) Thus, while the demand for treatment for alcohol-related problems remains high, treatment demand for substances other than alcohol is also on the rise. In addition, the results reproduce the finding (Plüddemann et al., 2003) of increasing poly substance use.

Table 3: Frequency of Substance Use

	Everyday		A few times a week		Less than once a month		Does not apply		Total
	n	%	n	%	n	%	n	%	n
Cannabis	48	61	9	12	1	1	20	26	78
Mandrax	41	53	11	14	2	3	23	30	77
Alcohol	15	20	26	34	4	5	31	41	76
Crack	8	11	10	14	1	1	55	74	74
Ecstasy	2	3	7	10	5	7	58	80	72
Heroin	3	4	2	3	1	1	65	92	71
Over the counter Medication	4	5	4	6	3	4	63	85	74
Prescription medication	3	4	2	3	5	7	62	86	72

Source: Newlands Park Centre, 2003

While the overall use of substances helps indicate the type of substances most commonly abused, an examination of substances abused according to age, reveal a different usage pattern specific to particular substances.

Table 4 below shows the age distribution of patients in treatment. The age categories are to some extent convenient, but accurately represent the peaks and troughs of patients in treatment for substance abuse. Overall, (44%) of patients entering inpatient treatment are 20 years or younger, with the largest numbers between 18 and 20 years of age. Eighty percent of patients in treatment are 35 years or younger.

Table 4: Age Distribution of Inpatients (N=79)

Age in Years	n	%
14-17	13	16.5
18-20	22	27.9
21-25	18	22.5
26-35	10	12.7
36-45	12	15.2
46-56	4	5.2
Source: Newlands Park Centre, 2003		

Table 5: Frequency of Substances of Abuse by Age Cohort

	Daily Use	
Age Cohort	**Under 20**	**Over 20**
	%	%
Alcohol	29	71
Cannabis	56	44
Mandrax	59	41
Source: Newlands Park Centre, 2003		

Given early work that indicates that youth in general use different substances than an older substance using population, (Plüddemann et al., 2003) the frequency of substances of abuse was analyzed by categorizing the age cohort as under or over 20 years of age. Results from the table 5 above reveal that (29%) of those under 20 consumed alcohol daily compared to (71%) of those over 20 years of age. Cannabis and mandrax are more commonly used by youth on a daily basis. Youth under the age of 20, (56%) use cannabis significantly more frequently than those do over 20 years of age (44%); (X^2 (1, 77) = 13.98, $p < .01$. Significantly more youth under 20 use mandrax (59%) than those over 20 years of age (41%); (X^2 (1,76)=13.53, $p < .01$.

These substances were most often taken at home, (30%), or a nightclub (20%), a drug place (16%) or a friend's house (12%). The remaining inpatients indicated that they had taken substances at entertainment places (4%), universities/technikons (4%) or hotels (4%). Ten percent of the sample indicated using these substances at places other than those that were listed. Most often, the substances were used in the company of friends

(62%), or were taken alone (27%). Family members, drug groups, spouses or children (11% jointly) were less commonly involved as drug partners.

4.2 Motivation for Treatment

The sample was examined in relation to their perception of the likelihood of the treatment programme to help them to overcome their addiction to the most commonly abused drugs for which treatment is sought, viz., alcohol, cannabis and mandrax.

Table 6: Perception of Likelihood that Treatment Programme would help with Addiction to Specific Substances of Abuse

	Very likely/ Likely		Unsure		Very unlikely/ Unlikely		Totals
	n	%	n	%	n	%	n
Mandrax	42	79	7	13	4	8	53
Alcohol	37	76	7	14	5	10	49
Cannabis	39	70	8	15	8	15	55

Source: Newlands Park Centre, 2003

Table 6 above shows that about three-quarters of those who reported mandrax, (79%) and alcohol, (76%) as a substance of abuse believed that the treatment programme would be beneficial to them, with slightly fewer (70%) believing that it would assist them with cannabis abuse. Overall, patients appeared to be confident that the treatment programme would help them in some way.

4.3. Characteristics of Self-Efficacy, Readiness to Change, Decisional Balance and Stages of Change

In the following set of analyses the readiness to change, decisional balance and self-efficacy scales are examined in relation to each other. Dummy variables were computed for decisional balance, self-efficacy and readiness to change scales such that a score of 1 indicates low levels of self-efficacy, decisional balance and readiness to change and a score of 2 indicates high levels of self-efficacy, decisional balance and readiness to change. The findings show that almost the entire sample of inpatients (99%) scored high

on readiness to change substance use behaviour. Similar high scores were obtained for self–efficacy, with (94%) of the sample of inpatients reporting high levels of self-efficacy. In terms of decisional balance, (75%) of inpatients indicated that they weighed the pros of being in treatment higher than the cons while (25%) were unsure about taking a decision regarding treatment.

However, this picture changes dramatically when these results are disaggregated and the readiness to change scale is examined separately for each of the subscales, viz., Recognition, Taking Steps to Change and Ambivalence (using the method in which high and low readiness to change sub-scores were determined on the basis of clinical findings).

While the ambivalence subscale was excluded from the bivariate and regression analysis, it is included here for completeness sake. Each of the three subscales is considered in relation to each other as this provides a more realistic picture of the various stages of change described earlier. So for example, if an individual obtains low scores on ambivalence, recognition and taking steps, then that individual by definition is properly classified as belonging within the precontemplation stage of change (Table 7).

These results reveal that of the 62 inpatients that responded to questions on the readiness to change scale, (29%) are low on taking steps to change, indicating that they are not currently doing things to change their addictive behaviour and have not made changes recently. They are also low on ambivalence, and low on recognition. These individuals make up the pre-contemplation group. This group is least ready to change their addictive behaviour and do not have any plans to change in the foreseeable future. From a treatment perspective this group is also most in need for motivational support and knowledge about the benefits of changing, in order to move them closer to change.

Table 7: Readiness to Change as a Function of Recognition, Taking Steps and Ambivalence [4]

Pre-contemplation (Low ambivalence+low recognition+low taking steps) (High ambivalence+low recognition+low taking steps)	n=18 (29%)
Contemplation (Low ambivalence+high recognition+low taking steps)	n= 7 (11%)
Preparation (Low ambivalence+low recognition+high taking steps) (High ambivalence+low recognition+high taking steps)	n =27 (44%)
Action/Maintenance (Low ambivalence+high recognition+high taking steps) (High ambivalence+high recognition+high taking steps)	n =10 (16%)
Source: Newlands Park Centre, 2003	

Eleven percent of the inpatients are low on taking steps to change, low on ambivalence and high on recognition, indicating that despite a slow start to taking steps to change, there is some openness on their part to reflection, as might be particularly expected in the contemplation stage of change. Forty four percent of these individuals are low on ambivalence, low on recognition and high on taking steps or high on ambivalence, low on recognition and high on taking steps. People in this stage are intending to take action in the immediate future, usually measured as the next month and are said to be in the preparation stage of readiness to change. They may have typically taken some significant action in the past year. Such individuals should be recruited for more action- oriented cessation programs. Eight percent of the 62 inpatients indicate that they are high on taking steps and high on recognition, indicating that they acknowledge that they are having problems related to their drinking and tend to express a desire to change and to perceive that harm will continue if they do not change. Finally, (8%) of the 62 inpatients indicate that they are high on taking steps to change, high on ambivalence and high on

[4] A total of 62 inpatients were obtained following listwise deletion of missing cases.

recognition to change. These individuals fall into the action/maintenance stage and are the group that have progressed the furthest in the stages of change readiness. They are the group who need help to persist in their change and to prevent them from backsliding to an earlier stage of change.

These results clearly show that inpatients in the current sample are at varying levels and stages of readiness to change their addictive behaviour. It also shows that global measures of readiness to change mask important differences that may be present among substance abusers. In line with these findings, the patients in the current sample fall into the five broad stages of readiness to change, as explained by the Transtheoretical Model of change described by Prochaska, DiClemente & Norcross (1992) viz., pre-contemplation, contemplation, preparation, action and maintenance stages. This finding is supportive of the study's hypothesis (See chapter 1), that in a sample of inpatient substance abusers, inpatients will have varying degrees of readiness to change their addictive behaviour.

This following analysis examines the association between key demographic variables and the Decisional Balance and Readiness to Change subscales as well as the Self-efficacy scale using Chi-Square analyses. It also examines the correlations between these variables and how they impact on readiness to change. Finally, to establish the predictive value of the Readiness to Change subscales (Recognition and Taking Steps), they were entered into two separate multiple regressions as dependent variables, with selected demographic variables, Decisional Balance and Self-efficacy entered as independent variables.

4.4 Demographic Characteristics and Readiness to Change (RTC), Decisional Balance and Self-efficacy: Chi Square analysis

In this part of the analysis, the associations between education, previous treatment and voluntary versus coercive reasons for entering treatment were examined in relation to the RTC and Decisional Balance subscales as well as Self-efficacy. These demographic

variables were chosen on the basis that treatment history and coercion are viewed as key influencing factors affecting readiness to change addictive behaviors (De Leon, 1988), as well as the intuition that individuals with higher levels of education are likely to be more receptive to change.

Since the majority of the sample (88%) had secondary or tertiary education, the dummy variable created for education was coded such that 1 represents education (i.e., all those individuals with secondary and tertiary education) and 0 represents no or little education (all those with no or only primary school education).

A significant association was noted between education and the Taking Steps component of the RTC scale, X^2 (1, 74) =6.767, p<. 01, but not with the Recognition component of the same scale, X^2 (1, 69) = .53, p>.05 (See Table 8[5]). In particular, within the low taking steps category, (8%) of these inpatients indicated having no or primary school education and (92%) indicated having either secondary or tertiary education. Furthermore, within the high taking steps category, (38%) of the inpatients indicated having no/primary school education and (62%) indicated having secondary or tertiary education. Educational status thus appears to play a key role in taking steps to change alcohol and substance use behaviour, but this may be moderated by other factors. This appears to be the case when it is noted that (92%) of individuals with secondary and tertiary education were actually low in taking steps to change.

[5] Statistics package for the Social Sciences (SPSS), version 13 was used to compute the Pearson chi square. Fisher's Exact test was used for calculating significance levels.

Table 8: Association Between Education and Taking Steps to Change (RTC)

	Readiness to Change Low Taking Steps		Readiness to Change High Taking Steps		Total
EDUCATION	n	%	n	%	n
No or Primary education	5	8	3	38	8
Secondary or tertiary education	62	92	5	62	67
Totals	67	100	8	100	75

Source: Newlands Park Centre, 2003

$X^2 (1, 74) = 6.767, p < .01$

Previous treatment for substance abuse and voluntary versus coercive reasons for admission to treatment did not reveal any significant differences on either of the RTC subscales.

The next set of analyses examines more closely the association between the Decisional Balance (DB) subscales, viz., pro-change (DBPro) and against change (DBCon) and the demographic variables of education, previous treatment and voluntary versus coercive reasons for admission to treatment. To avoid the problem of empty cells, the DB scales were dummy coded such that scores of 1, 2 or 3 (not at all important to unsure) were given a value of 1 and scores of 4 and 5 (important to extremely important) were given a score of 2.

No significant associations were found for the DB subscales and above demographic variables.

This next set of analyses will examine more closely the association between the readiness to change subscales, self-efficacy scale, decisional balances subscales and the demographic variables of education, and voluntary versus coercive reasons for admission to treatment. As with the other subscales, the Self-efficacy scale was dummy coded such that scores of 1 and 2 (not at all true and hardly true) were given a value of 1 and scores of 3 and 4 (moderately true and exactly true) were given a score of 2.

A general trend was noted indicating that individuals who were previously in treatment, had high levels of education or who entered treatment voluntarily showed higher levels of self-efficacy, even though this was not significant.

4.5 Relationship Between Readiness to Change Subscales, Decisional Balance, Self-Efficacy, Education and Coerced Treatment

The Recognition (RTC) subscale was positively correlated with Decisional Balance Pro (DB Pro), Education and Taking Steps, but not with Self-efficacy and it was negatively correlated with Coercion into treatment. The Taking Steps subscale was positively correlated with Self-efficacy, DB Pro, and Decisional Balance Con (DB Con) and Education and negatively correlated with Coercion into treatment. Finally, the inpatients DB Pro was positively correlated with DB Con and educational level, but not with any of the other variables. These findings provide partial support for the hypotheses suggesting a relationship between readiness to change, decisional balance and self-efficacy. In addition, a patient's level of education and whether they were coerced into having treatment appears to be related to their readiness to change.

Table 9: Correlations Between the Readiness to Change, Decisional Balance, Self-Efficacy Education and Coerced Treatment. [6]

	Recognition (RTC)	Taking Steps (RTC)	Self-Efficacy Scale	DB Pro	DB Con	Education	Coerced
Recognition (RTC)	--	.65**	.01	.35**	.17	.26*	-.24*
Taking Steps (RTC)		--	.26*	.39**	.27*	.33**	-.34**
Self-Efficacy Scale			--	.23	-.07	-.07	.04
DB Pro				--	.25*	.24*	-.03
DB Con					--	.15	-.12
Education						--	.-.17
Coerced							--

Source: Newlands Park Centre, 2003

* $p < .05$; ** $p < .01$

4.6 Multiple Regression Analyses

As indicated earlier, readiness to change substance use behaviour is influenced by a number of factors. Given that the components of the Readiness to Change scale, viz., Recognition and Taking Steps, appear to be related in different ways to self-efficacy, decisional balance and key demographic variables, two separate regressions were done for each of these. The order of entry of each of the independent variables was determined on the basis of their theoretical proximal or distal influence.

The results from the first regression analysis reveal that Recognition to Change is successfully predicted by the positive decisional balance component (DB Pro). The second regression analysis revealed that Taking Steps to change is also strongly predicted by DB Pro. Coercion into treatment is also significantly related to readiness to change for

[6] N= 67

both recognition of the need for change as well as taking steps to change. (See Tables 10 and 11).[7]

Table 10: Hierarchical Multiple Regression Predicting Readiness to Change - Recognition [8]

	Std. Error	Beta	t
DBscale Pro	.15	.41	3.41**
DBscale Con	.07	.17	1.48
SEscale	.16	-.19	-1.61
Coerced	.24	-.28	-2.47*
Education	.31	-.15	-1.26
Source: Newlands Park Centre, 2003			

Adjusted R^2= .22
* p < .05; ** p < .01

Table 11: Hierarchical Multiple Regression Predicting Readiness to Change – Taking Steps [9]

	Std. Error	Beta	t
DBscale Pro	.17	.40	3.46**
DBscale Con	.06	-.09	-.87
SEscale	.12	.12	1.03
Coerced	.19	-.27	-2.48*
Education	.24	.04	.38
Source: Newlands Park Centre, 2003			

Adjusted R2 = .21

*p < .05; **p <. 01

[7] The Bonferroni procedure provides an alpha value of .008 on 7 tests. Only one chi-square statistic was significant at the .001 level, as were both the predictors in the hierarchical regressions, i.e. well above the criterion set by the Bonferroni procedure.

[8] Table 10, N=67

[9] Table 11, N=68

The next section will present a detailed discussion of the various analyses above, in light of univariate, bivariate, chi-square and multiple regression analyses conducted. These results are discussed in terms of their implications for treatment as well as future directions for this area of research. In addition, the limitations of the current study are give due consideration.

CHAPTER FIVE: DISCUSSION

The aim of the present study was to determine the relationship between self-efficacy, decisional balance and readiness to change addictive behaviour among inpatients recently admitted for alcohol and other drug abuse at a substance use treatment facility. The Transtheoretical Model (TTM) of change was used as a theoretical framework, exploring the concepts of motivation, decisional balance and self-efficacy in understanding behavioural change among substance abusers. Three separate measures were used in assessing these key variables of concern, viz., a modified SOCRATES scale, a general self-efficacy scale and a decisional balance scale.

In keeping with recent findings from surveys of substance abuse patterns (Parry et al, 2000-2003); univariate analysis revealed that the three major substances of abuse among male inpatients are alcohol (54%), cannabis (67%) and mandrax (73%) (See table 3). Seventy three percent of these inpatients are first time treatment seekers (See table 2), and 27% had history of previous treatment. Overall, just under half (44%) of patients entering inpatient treatment are 20 years or younger, with the largest numbers between 18 and 20 years of age. Eighty percent of patients in treatment are 35 years or younger. Taken per substance, about three-quarters of the inpatients who reported mandrax and alcohol as their substance of abuse, believed that treatment would be beneficial to them in overcoming their addiction to these substances, with slightly fewer (70%) reporting that they believed it would assist them overcoming their addiction to cannabis (See table 6). This is likely related to the fact that most (86%) indicated that they were in inpatient treatment voluntarily, while the remainder stated that they were there because others wanted them to be in treatment. Previous research has found that when individuals enter treatment voluntarily they are often more likely to be motivated and ready to change their addictive behaviour than are patients who enter under coercive conditions (De Leon, 1988). However when inpatients are coerced into treatment they may be less likely to change their addictive behaviour. This finding is supported by the correlational results in the current study, whereby coercion into treatment was found to be inversely correlated with the Recognition and Taking Steps. In particular, inpatients that were coerced into

treatment did not recognize the need for change and did not take steps to change their addictive behaviour. In the broader theoretical framework of the study, these individuals deny that alcohol is causing them serious problems, reject diagnostic labels such as "problem drinker" and "alcoholic," and do not express a desire for change.

Descriptive analyses of the Self-Efficacy and Decisional Balance scales reveal that the majority of inpatients, scored at the upper end of the Readiness to Change Scale. These high scorers are reflective of those who directly acknowledge that they are having problems related to their drinking, tending to express a desire for change and perceive that harm will continue if they do not change (Prochaska et al., 1994). The consistency of response across the measures shows support for the broad theoretical basis of the present study, viz., that when individuals enter treatment voluntarily, are motivated and have high levels of treatment self-efficacy, they are likely to be ready to make positive changes in their substance use behaviour.

However, self-efficacy per se is not responsible for behaviour change. Most of the inpatients in the sample scored on the upper end of the self-efficacy scale, suggesting that they are confident in their ability to successfully negotiate the treatment programme and overcome their substance abuse addictions. However, two-thirds indicated that they weighed the pros of being in treatment higher than the cons on the decisional balance scale suggesting that at least this group was uncertain about the benefits of being in a treatment programme. DiClemente et al. (1990) reported similar findings and noted that being in treatment is not necessarily synonymous with readiness to change one's behaviour. It is also consistent with a previous study investigating readiness to change, which makes a useful distinction between readiness for treatment versus readiness for change. It reveals that treatment attendance does not equal treatment action, as treatment is a time-limited event that interacts with a larger process of change. Treatment should therefore be seen as only part of the process of change (DiClemente, 1999). Thus, while inpatients may express a desire to change, they may still not be convinced, or aware of the benefits of being in treatment, by the time of arriving at the treatment centre. Furthermore the fact that inpatients enter treatment under varying conditions, (86%

versus 14%), may also account for their ambivalence about the efficacy of the treatment programme, revealed in their overall decisional balance score.

The Transtheoretical Model of behaviour change indicates in fact that patients can be clustered along a continuum of change ranging from pre-contemplation, contemplation, and ambivalence to preparation and action/maintenance (Prochaska et al., 1994; Prochaska, 1994; DiClemente, 1999). While, initial analyses suggested that most inpatients were either in the preparation or action stages of change, had high levels of self-efficacy and were confident about the benefits of being in treatment, closer inspection of the Readiness to Change subscales of the SOCRATES indicated that patients were indeed at various stages of change.

The results show that inpatients in the current sample are at varying levels and stages of readiness to change their addictive behaviour. Patients low on taking steps to change (29%) indicated that they are not currently doing things to change their addictive behaviour and have not made changes recently. They are also low on ambivalence, and low on recognition, indicating that they do not wonder whether they drink/take drugs too much, are in control of their addictive behaviour or are hurting others because they deny that alcohol /drugs is problematic, and therefore do not express a desire for change. In the broader theoretical framework of this study, these individuals are in the pre-contemplation stage of change. Such individuals do not intend to make changes in the near future, (Prochaksa, DiClemente & Norcross, 1992) and do not view their drinking and its effects as problematic. From a treatment perspective, these are the individuals most in need of motivation, self-efficacy and knowledge of the benefits rather than the losses of changing their addictive behaviour.

On the other hand, patients low on taking steps to change and high on ambivalence (9%), and who are open to reflection, are in the contemplation stage of change, as might be expected, despite a slow start to taking steps to change. Such individuals may be considering change in the foreseeable future, though they have not yet made any concrete plans to execute the change. Within a treatment context, such individuals may require

direction to persist in their plans to execute the change and move from the contemplation to action stage of change. Treatment programmes that focus on guiding the patient through a change process may therefore be more useful as an initial step toward an action stage.

Those inpatients high on taking steps to change but low on recognition to change (9%), may deny that alcohol/drugs are a problem and reject diagnostic labels such as "problem drinker and "alcoholic", but may be prepared to take steps to change or at least, alter their drinking or drug-taking behaviour. These individuals may find it difficult to relate to a treatment model that expects the patient to accept their substance abuse as an illness or a disease, as is the case in most treatment environments. The philosophical issues guiding treatment agencies may itself create an impediment to affect treatment outcomes.

Patients who scored high on taking steps and high on recognition (8%) may acknowledge that they are having problems related to their drinking with a desire to change and believe that harm will continue if they do not change. Based on the Transtheoretical Model, these individuals are likely to be in the preparation stage of change, indicating that they intend to change in the foreseeable future and have come up with a specific plan to change the intended behaviour. The final group (18%), indicate that they are high on taking steps to change, high on ambivalence and high on recognition to change. These individuals acknowledge that their substance abuse is a problem; they report that they are doing something to make positive changes in their drinking and drug taking and may already have experienced some success in this regard. For these inpatients, change is underway, and they may want help prevent backsliding. Individuals in this group are expected to be in the action stage of change, whereby they are actively engaging in changing the addictive behaviour (Prochaska et al., 1992).

Taken as a whole, thirty-nine percent of inpatients are not ready to change, 43% are in the preparatory stage of change, and less than one in five (18%) inpatients is ready to change. These results are in keeping with the finding that, relapse among first time inpatients is common (even though this model does not take account of contextual variables). It is also

in keeping with findings from previous studies applying the Transtheoretical model. These studies indicate that in any given sample of inpatients in substance abuse treatment, individuals fall into one of the 5 stages of readiness to change and are heterogeneous in terms of their motivation to change their addictive behaviour (DiClemente, 1999; DiClemente et al, 1999; Marlatt et al, 1985). In addition these results support the broad hypothesis of the current study that individuals in treatment for substance abuse will be at varying levels of readiness to change their addictive behaviour.

Based on the correlational analyses, a positive relationship between the self-efficacy and taking steps subscale provides partial support for the study's hypotheses that individuals who have high levels of self-efficacy are also more likely to take the necessary steps to change their addictive behaviours. Screening such individuals for self-efficacy and readiness to take steps to change their behaviour, at the outset of treatment and providing them treatment messages that maintain their high self-esteem and confidence in their ability to negotiate difficult periods during treatment, may be useful in avoiding relapse. These individuals are likely to benefit from more action-oriented, incentive-based treatment, given their positive attitude and confidence in their ability to change.

The positive correlation between the Recognition subscale and Decisional Balance Pro (DB Pro) indicates that those individuals who weigh the benefits of being in treatment much higher than the losses are more likely to recognize the need for change than are individuals who see treatment and change as a loss (con) to them. This finding partially supports the hypothesis of the current study, which posits that a positive relationship exists between decisional balance and readiness to change. It also replicates previous findings, which reveal that when individuals rate the benefits of being in treatment higher than the losses, they are more likely to be in the latter stages of readiness to change. (Prochaska, Velicer, Rossi, Goldstein, Marcus, Rakowski, Fiore, Harlow, Redding, Rosenbloom, & Rossi, 1994)

The positive correlation between the Taking Steps Subscale and the pro component of the Decisional Balance scale partially supports findings from previous studies, as well as the

current study's hypothesis. In effect, individuals' view of treatment and change as a benefit (pro) rather than a loss is likely to be associated with them being in the later stages of readiness to change their addictive behaviour (Taking Steps), than individuals who view change as a loss (con).

The results also show that an individual's educational level is associated with an individual's readiness to take the necessary steps to change their addictive behaviour. In particular, individuals who have higher levels of education, i.e., secondary or tertiary school education appear to have greater commitment to changing their addictive behaviours than those individuals with lower levels of education.

Overall, the relationship of positive Decisional Balance subscale (DB Pro) to both Recognition of the need to change and Taking Steps to change subscales, as well as its predictive value in relation to these subscales replicates previous findings. Thus, support is provided for the key role of the decisional balance construct in influencing an individual's decision to change their addictive behaviour (Prochaska et al., 1994). In addition, educational status appears to play a key role in influencing an inpatient's readiness to change their addictive behaviour.

Based on the results from the multiple regression analysis, an inpatient's readiness to change their addictive behaviour is successfully predicted by other factors such as, DB Pro and the Coercive conditions under which inpatients enter treatment. In particular, positive Decisional Balance (DB Pro) was found to predict both Recognition and Taking Steps to change. The decision to separate the variables in terms of the subscales appears to have been justified especially since Recognition of the need for change and Taking Steps to change are differentially related to the decision to change, and self-efficacy. This result is in keeping with findings of a relationship between readiness to change and decisional balance, hypothesized in the current study. It also replicates previous findings which point to the critical role that the decisional balance construct can play in validating the distinctions among the stages of change (Carey et al., 2002).

Finally, the conditions under which people enter treatment are predictive of their success in treatment and their willingness to change their addictive behaviour. In particular, those individuals who entered treatment under coercive conditions appear to be less likely to acknowledge that they have an addiction, or are alcoholics, and take the necessary steps to change their addictions than those individuals who entered treatment voluntarily. Thus, entering treatment under coercive Vs non-coercive conditions is related to an individuals' willingness to change their addictive behaviour.

In the next section the results are discussed in terms of their implications for treatment as well as future directions for this area of research. Thereafter, due consideration is given to the limitations of the current study.

5.1 Limitations and Future Directions

While self-report is a generally accepted and useful approach in behavioural research, its sole application in particular instances can compromise the outcomes depending on the population under study. Thus, future studies could explore the possibility of using different data collection methods, for e.g., clinic staff ratings of inpatients motivation and readiness to change in order to get a more accurate view of the study sample both prior to and post administering the questionnaire, as well families ratings of individuals' desire to change.

To enable better monitoring of the process of change, the study design could examine readiness to change, self-efficacy and decisional balance at various points in the treatment process, i.e., at the outset of treatment, mid-way through the programme and at the end of the treatment process. Furthermore, interviews with treatment staff or focus groups discussions with inpatients may produce a more nuanced and realistic perspective of inpatients readiness to change. External factors and influences are largely removed at this stage and this may produce a self-belief that they are likely to succeed. It is not only important to assess readiness to change over a period but to determine readiness to change with regard to environmental contexts that encourage substance use. Being out of such an environment reduces the pressure that such individuals feel, albeit temporarily,

but might also help explain the "feel good" factor of being in treatment initially. Issues related to voluntary versus coerced treatment also needs to be unpacked to make better sense of the various ways in which patients can be coerced into treatment, recognizing that often families and friends can place formidable coercive pressure on an individual to seek treatment. Coercion then is not only of a legal or work-related nature.

5.2 Implications for Treatment Interventions

On the basis of the inter-relationship between self-efficacy, decisional balance and readiness to change subscales, accommodating treatment interventions to the specific stages related to patient self-efficacy, decision-making and readiness to change may encourage a better fit between treatment needs and stages of change and potentially influence relapse rates of those in inpatient treatment (Sitharthan et al., 1990). Previous research on smoking has found that tailoring the information on quitting at various points in the stages of change may yield more successful and effective results from the treatment intervention (DeVries et al., 1988). This is especially so in the case of pre-contemplators who differ significantly from actors in their perception of treatment compliance and therefore need to be convinced of the advantages of quitting and remaining in treatment. Actors/Maintainers on the other hand, were convinced of the benefits of quitting and had higher levels of self-efficacy.

In addition, given the important role of decisional balance, in influencing readiness to change in the current study, participants who are in the pre-contemplation stage of readiness to change should be made more aware of the pros of quitting their alcohol and substance use to be able to move them to the contemplation stage of readiness to change. For participants, already in the action stage all attempts should be made to enhance their self-efficacy levels and to make them aware of the pros of treatment. Finally, due consideration should also be given to the role of socio-cultural factors and attitudinal differences in the process of readiness to change in future studies examining this area of research.

REFERENCE LIST

Ajzen, I. & Fishbein, M. (1980). *Understanding the attitudes and predicting social behaviour.* Eaglewood Cliffs: Prentice-Hall.

Anglin, M.D. (1988). The efficacy of civil commitment in treating narcotics addiction. *Journal of Drug Issues, 18,* 527-545.

Annis, H. M. & Davis, C.S. (1988). Assessment of expectancies. In D.M. Donovan & G.A Marlatt (Eds.). *Assessment of addictive behaviours.* pp. 84-111. New York: Guilford.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review, 84,* 191-215.

Bandura, A. (1986). *Social foundations of thought and action.* Eaglewood Cliffs: Prentice Hall.

Burling, T.A., Reilly, P.M., Molzen, J.O., & Ziff, D.C. (1989). Self-efficacy and relapse among inpatient drug and alcohol abusers: A predictor of outcome. *Journal of Studies on Alcohol, 50* (4), 354-360.

Carey, K. B., Purnine, D. M., Maisto, S.A., & Carey, M. P. (2002). Correlates of stages of change for substance abuse among psychiatric outpatients. *Psychology of Addictive Behaviours, 16,* 283-289.

Carroll, J.S. (1991). Consent to mental health treatment: A theoretical analysis of coercion, freedom and control. *Behavioural Sciences and the Law, 9,* 129-142.

Daley, M., Argeriou, M., McCarthy, D., Callahan, J.J. Jr., Shephard, D.S., & Williams, C.N. (2001). The impact of substance abuse treatment modality on birth weight and health care expenditures. *Journal of Psychoactive Drugs, 33*(1), 57-66.

De Leon, G. (1988). Legal pressure in therapeutic communities. Special issue: A social policy analysis of compulsory treatment for opiate dependence. *Journal of Drug Issues, 18,* 625-640.

De Vries, H. & Mudde, A.N. (1998). Predicting stage transitions of smoking cessation applying the attitude-social influence efficacy model. *Psychology and Health, 13,* 369-385.

De Vries, H., Dijkstra, M., & Kuhlman, P. (1988). Self-efficacy: The third predictor besides attitude and subjective norm as a predictor of behavioural intentions. *Health Education Research, 3*, 273-282.

DeVries, H. & Backbier, E. (1992). Self-efficacy as an important determinant of quitting among pregnant women who smoke. *International Journal of Addiction, 27*, 156-570.

DiClemente, C. C. (1999). Motivation for change: Implications for substance abuse treatment. *Psychological Science, 10*, 209-213.

DiClemente, C. C., Bellino, L. E., & Neavins, M. S. (1999). Motivation and change for alcoholism treatment. *Alcohol Research and Health, 23*, 86-92.

DiClemente, C. C., Fairhurst, S. K., Velasquez, M. M., Prochaska, J. O., Velicer, W. F., & Rossi, J. S. (1991). The process of smoking cessation: An analysis of pre-contemplation, contemplation, and preparation stages of change. *Journal of Consulting and Clinical Psychology, 59*, 295-304.

DiClemente, C. C., Prochaska, J. O., & Gibertini, M. (1985). Self-efficacy and the stages of self- change of smoking. *Cognitive Therapy and Research, 9*, 181-200.

DiClemente, C.C. (1991).Motivational interviewing and stages of change. In W.R Miller & S. Rollnick (Eds.). *Motivational interviewing: Preparing people to change addictive Behaviour*. pp.191-202. Guilford: New York.

Dijkstra, A., De Vries, H., & Bakker, M. (1996). Pros and cons of quitting, self-efficacy and the stages of change in smoking cessation. *Journal of Consulting and Clinical Psychology, 64*, 758-763.

Donovan, D. M. & Marlatt, G.A. (1988). *Assessment of addictive behaviours*. New York: Guilford.

Gerdner, A. & Holmberg, A. (1999). Factors affecting motivation in severely dependent alcoholics. *Journal of Studies on Alcohol, 61*, 548-560.

Grant, B.F. & Dawson, D.A. (2004). Age at onset of alcohol use and its association with DSM-IV alcohol abuse and dependence: Results from a national longitudinal alcohol epidemiologic survey. *Journal of Substance Abuse, 9,* 103-110.

Gredler, M.E. (1992). *Learning and instruction: Theory into practice.* (2nd Edition Ed.). New York: Macmillan Publishing Company.

Horn, J.L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika, 30,* 179-185.

Institute of Medicine. (1990). *Treating drug problems.* Washington, D.C: National Academy Press.

Isenhart, C.E. (1994). Motivational subtypes in an inpatient sample of substance abusers. *Addictive Behaviour, 19,* 463-475.

Janis, I. L. & Mann, L. (1977). *Decision making.* New York: Macmillan Publishing Co.

Jerusalem, M., & Schwarzer, R. (1992). Self-efficacy as a resource factor in stress appraisal processes. In R. Schwarzer (Ed.), *Self-efficacy: Thought control of action* (pp. 195-213). Washington, DC: Hemisphere.

Kassebaum, P.A. (1999). *Substance abuse treatment for women offenders: Guide to promising practices.* Rockwall, MD: Johnson, Bassin & Shaw Inc.

Lauby, J.L., Seeman, S., Cohen, A., Leviton, L., Gielen, A., Pulley, L., Walls, C., & O'Campo, P. (1998). Self-efficacy, decisional balance and stages of change for condom use among women at risk for HIV infection. *Health Education Research, 13*(3), 343-356.

Lautenschlager, G. J. (1989). A comparison of alternatives to conducting Monte Carlo analyses for determining parallel analysis criteria. *Multivariate Behavioural Research, 24,* 365-395.

Majer, J. M., Jason, L. A., Ferrari, J. R., Olson, B. D., & North, C. S. (2003). Is self-mastery always a helpful resource? Coping with paradoxical findings in relation to optimism and abstinence self-efficacy. *American Journal of Drug and Alcohol Abuse, 29* (2), 385-399.

Mann, L. (2004). Use of a balance-sheet procedure to improve the quality of personal decision-making. *Journal of Vocational Behaviour, 2*, 291-300.

Marcus, B. H., Rakowski, W., & Rossi, J.S. (1992). Assessing motivational readiness and decision-making for exercise. *Health Psychology, 11*, 257-261.

Marlatt, G. A., Baer, J. S., & Quigley, L. A. (1994). Self-efficacy and addictive behaviour. In A. Bandura (Eds.). *Self-efficacy in changing societies*. Marbach, Germany: Johann Jacob Foundation.

Marlatt, G.A. & Gordon, J.R.E. (1985). *Relapse prevention*. New York: Guilford.

Martin, R. A., Rossi, J.S., Rosenbloom, D., Monti, P. M. &. Rosenhow, D.J. (1992). *Stages and processes of change for quitting cocaine*. Paper presented at 26th annual meeting of the Association for the Advancement of Behaviour Therapy, Boston, MA.

Matzopoulos, R., Seedat, M., Cassim, M. (2003). *A profile of fatal injuries in South Africa:* Fourth annual report of the national injury mortality surveillance system 2002. Parow: Medical Research Council.

McKay, J.R. & Weiss, R.V. (2001). A review of temporal effects and outcome predictors in substance abuse treatment studies with long-term follow-ups. Preliminary results and methodological issues. *Evaluation Review, 25*, 113-161.

Miller, W., Tonigan, J. (1996) Assessing drinkers' motivation for change: The stages of change readiness and treatment eagerness scale (SOCRATES). *Psychology of Addictive Behaviour, 10,* 81-89.

Miller, W., Tonigan, J.S. (1994) *Assessing drinkers' motivation for change: The stages of change readiness and treatment eagerness Scale (SOCRATES) scale.* Unpublished manuscript, University of New Mexico, Albuquerque.

Miller, W.R., Zweben, A., DiClemente, C.C., Rychtarik, R.G. (1992). *Motivational Enhancement Therapy Manual: A clinical research guide for therapists treating individuals with alcohol abuse and dependence;* DSHS Publication No. (ADM) 92-1894 National Institute on Alcohol Abuse and Alcoholism, Government Printing Office: Washington, DC.

Myers, B., Parry, C.D.H., Pluddemann, A. (under review). *Indicators of substance abuse treatment demand in Cape Town.* Findings from the SACENDU project: 1998-2000

Mynhardt, C. (2003). Substance use amongst professional drivers. In Plüddemann, A., Hon, S., Parry, C.D.H., Bhana, A., Matthysen, S., Potgieter, H., & Gerber, W. *Monitoring Alcohol and Drug Abuse Trends in South Africa.* pp. 49 Proceedings of SACENDU Report Back Meetings, October 2003: January - June 2003 (Phase 14). Parow: Medical Research Council.

National Institute on Alcohol Abuse and Alcoholism (1995). *Assessing alcohol problems: A guide for clinicians and researchers.* Bethesda, MD: NIH Publications.

O'Connell, D., & Velicer, W.F. (1988). A decisional balance measure and stages of change model for weight loss. *The International Journal of the Addictions, 23,* 729-750.

Parry, C.D.H & Bennets, A.L. (1998) *Alcohol policy and public health in South Africa.* Oxford University Press: Cape Town.

Parry, C.D.H. (2000). Alcohol problems in developing countries: Challenges for the new millennium. *Suchtmed, 2,* 216-220.

Penny, D. (1988). *A comparison of psychotherapy changers and self-changers in a naturalistic environment.* Unpublished doctoral dissertation, University of Rhode Island, Kingston.

Plüddemann A., Parry, C.D.H., Bhana, A., Harker, N., Potgieter, H., Gerber, W. (2003). Monitoring alcohol and drug abuse trends in South Africa. *SACENDU Research brief, 6*(1).

Plüddemann A., Parry, C.D.H., Bhana, A., Harker, N., Potgieter, H., Gerber, W. (2004). Monitoring alcohol and drug abuse trends in South Africa. *SACENDU Research brief, 7*(1).

Prochaska, J. O. (1994). Strong and weak principles for progressing from pre-contemplation to action on the basis of twelve problem behaviours. *Health Psychology, 13,* 47-51.

Prochaska, J.O., & DiClemente, C.C. (1983). Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology, 51*, 390-395.

Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Application to addictive behaviours. *American Psychologist, 47*, 1102-1114.

Prochaska, J. O., Velicer, W. F., Guadagnoli, E., Rossi, J.S., & DiClemente, C.C. (1991). Pattern of change: Dynamic typology applied to smoking cessation. *Multivariate Behavioural Research, 26,* 83-107.

Prochaska, J. O., Velicer, W. F., Rossi, J. S., Goldstein, M. G., Marcus, B.H, Rakowski, W., Fiore, C., Harlow, L.L., Redding, C.A., Rosenbloom, D., & Rossi, S. R. (1994). Stages of change and decisional balance for 12 problem behaviours. *Health Psychology, 13*, 39-46.

Rossi, J.H.S, Rossi, S.R., Velicer, W.F., & Prochaska, J.O. (1995) Motivational readiness to control weight. In D.B. Allison (Eds.). *Handbook of assessment methods for eating behaviours and weight-related problems: Measures, theory and research.* pp. 387-430. Thousand Oaks, CA: Sage.

Sandahl, C., Linberg, S., & Ronnberg, S. (1990). Efficacy expectations among alcohol-dependent patients: A Swedish version of the situational confidence questionnaire. *Alcohol & Alcoholism, 25* (l), 67-73.

Schwarzer, R. (1992). *Self-efficacy, thought control of action.* Washington: Hemisphere.

Schwarzer, R., & Fuchs, R. (1995). Self-Efficacy and health behaviours. In M.Conner & P. Norman (Eds.). *Predicting Health Behaviour: Research and practice with social cognition models.* pp.1-49 Buckingham: Open University Press.

Sitharthan, T. & Kavanagh, D. J. (1990). Role of self-efficacy in predicting outcomes from a program for controlled drinking. *Drug and Alcohol Dependence, 27*, 87-94.

Sobell, L. C., Sobell, M. B., Toneatto, T., &. Leo. G. I. (1993). What triggers the resolution of alcohol problems without treatment? *Alcoholism: Clinical and Experimental Research, 17*(2), 217-224.

Tsoh, J.Y. (1993). *Motivation and stages of change among drug addicts in drug abuse treatment programmes.* Unpublished Master's thesis, University of Rhode Island, Kingston.

Tsoh, J.Y., Prochaska, J.O., & Rossi, J.S. (1998). *Coercion, stages and decisional balance among patients in substance abuse treatment.* Manuscript submitted for publication.

Velicer, W.F. (1976). Determining the number of components from the matrix of partial correlations. *Psychometrika, 41*, 321-327.

Velicer, W.F., DiClemente, C.C., & Brandenburg, N. (1985). Decisional balance measure for assessing and predicting smoking status. *Journal of Personality and Social Psychology, 48*, 1279-1289.

Velicer, W.F., Prochaska, J.O., Fava, J., Norman, G.J., & Redding, C.A. (1998). Smoking cessation and stress management: Applications of the transtheoretical model of Behaviour change. *Homeostasis, 38*, 216-233.

Velicer, W.F., Prochaska, J.O., Rossi, J.S., & Snow, M. (1992). Assessing outcomes in smoking cessation studies. *Psychological Bulletin, 111*, 23-41.

Vik, P.W., Culbertson, K.A., & Sellers, K. (2000). Readiness to change drinking among heavy-drinking college students. *Journal of Studies on Alcohol, 61*, 674-680.

Washton, A.M. (1989). *Cocaine addiction.* New York: W.W. Norton & company.

Wright, S., Klee, H., & Reid, P. (1999). Attitudes of amphetamine users toward treatment services. *Drugs: education, prevention and policy, 6*(1), 71-86.

APPENDICES

APPENDIX A

DEMOGRAPHIC QUESTIONNAIRE

INSTRUCTIONS

Please answer **ALL** questions

1. **Date form completed: ---------/---------/--------**

2. Who referred you for treatment? (Please mark the ONE answer most appropriate for you)

   a) Self/family/friends
   b) Employer/work
   c) Hospital/Clinic
   d) Courts/correctional services
   e) Other (specify)_____
   f.) Religious group
   g.) Health Professional
   h.) Social Services
   i.) School

3. Are you male or female? _____

Male	**Female**

4. What is your age? _____

5. What population group do you belong to? (Please mark answer with an X)

African	**Asian**
Coloured	**White**

6. What is your highest level of education completed? (Circle grade/option)

None	**1 2 3 4 5 6 7**	**8 9 10 11 12**	**Any Tertiary**

7. What is your current employment status? (Please circle appropriate answer)

   a. Working full-time
   b. Working part-time
   c. Not working
   d. Apprentice/internship
   i. Other (Specify)_____
   e. Student/Pupil
   f. Disabled/medically boarded
   g. Housewife
   h. Pensioner

8. If currently unemployed, what did you do previously?

a. Working full-time
b. Working part-time
c. Not working
d. Apprentice/internship
e. Student/pupil
f. Disabled/medically boarded
g. Housewife
h. Pensioner
i. Other (Specify) _____

9. What is your marital status? ***DQ***

a. Married (civil/traditional) living with spouse
b. Married (civil/traditional) not living with spouse
c. Living in a non-married intimate relationship
d. Divorced
e. Widowed
f. Never married (not living within non-married intimate relationship)
g. Other (specify) _____

10. How old were you when you first started using **Alcohol** regularly? _____

11. How old were you when you first started using **Drugs** regularly? _____

12. Have you been in treatment previously? (Please mark appropriate answer with X)

YES
NO

13. If you answered **YES** to the previous question:

a) How long ago was this in months? _____

b) Was it inpatient treatment, outpatient treatment, or both? _____

c) What length of time did you spend the last time you were in treatment? (Please mark appropriate answer with an X)

- A few days ___
- 1 week ___
- 2-3 weeks ___
- 1 month ___
- Longer than a month ___

14. How many times have you been in treatment previously? (At this treatment center OR any other treatment center) ***DQ***

a) Once

b) Twice

c) Three times

d) Four times or more

15. How long have you been contemplating (thinking about) seeking treatment?

a) In the past month

b) In the past **three** months

c) In the past **six** months

d) In the past year

e) Have not been contemplating at all

16. You are in treatment because mostly:

a) **You** wish to change your alcohol/drug behaviour?

b) **Others** want you to change your alcohol/drug behaviour?

17. How likely is your current treatment going to help you stop using? ***DQ***

	Very likely	**Likely**	**Unsure**	**Unlikely**	**Very Unlikely**
Alcohol					
Dagga					
Mandrax					
Ecstacy					
Crack					
Cocaine					
LSD					
Prescription medication/Over the counter medication					

18. Which of the following do you expect will improve or remain the same following treatment?

	Improve a lot	**Improve a little**	**Not Improve at all**	**Does not apply**
Job/Work situation				
Family Relationships				
Personal Relationships				
Health				
Financial security				
Emotional well-being				

19. From the following, indicate which substances you use, and then, if applicable, indicate how often you use them

ALCOHOL

a) Everyday
b) 4-5 times a week
c) Once a week
d) 3-4 times a week
e) Less than once a month
f) Does not apply

CRACK (Rocks)

a.) Everyday
b.) 4-5 times a week
c.) Once a week
d.) 3-4 times a week
e.) Less than once month
f.) Does not apply

DAGGA

a) Everyday
b) 4-5 times a week
c) Once a week
d) 3-4 times a week
e) Less than once a month
f) Does not apply

ECSTACY

a.) Everyday
b.) 4-5 times a week
c.) Once a week
d.) 3-4 times a week
e.) Less than once month
f.) Does not apply

MANDRAX

a) Everyday
b) 4-5 times a week
c) Once a week
d) 3-4 times a week
e) Less than once a month
f) Does not apply

HEROINE

a.) Everyday
b.) 4-5 times a week
c.) Once a week
d.) 3-4 times a week
e.) Less than once month
f.) Does not apply

OVER THE COUNTER MEDICATION

a) Everyday

b) 4-5 times a week

c) Once a week

d) 3-4 times a week

e) Less than once a month

f) Does not apply

PRESCRIPTION MEDICATION

a.) Everyday

b.) 4-5 times

c.) Once a week

d.) 3-4 times a week

e.) Less than once month

f.) Does not apply

20. Where do you usually take your alcohol/drugs? (Please circle only ONE option)

a) At home
b.) At a friend's house
c.) Niteclub
d.) University/Technikon
e.) Drug place
f.) Public toilet
g.) Hotel
h.) Entertainment Place
i.) Other_____

21. Who do you usually use alcohol/drugs with? (Please circle only ONE option)

a) Alone
b.) Friends
c.) Family member
d.) Work colleague
e.) Drug group
f.) Strangers
g.) Partner
h.) Spouse
i.) Children

APPENDIX B

SOCRATES SCALE

INSTRUCTIONS

Please read the following statements carefully.
Each one describes how you might feel about your ***drinking/drug use.*** For each statement, please place an ***X*** in the box to indicate how much you ***agree*** or ***disagree*** with it right now.
Please ensure that you mark ***only one*** box.

	Strongly disagree	**Disagree**	**Unsure**	**Agree**	**Strongly agree**
1. I really want to make changes in my drinking/drug use.					
2. Sometimes I wonder if I am an alcoholic/addict.					
3. If I don't change my drinking/ drug use soon, my problems are going to get worse.					
4. I have already started making some changes in my drinking/ drug use.					
5. I was drinking too much at one time, but I've managed to change my drinking/ drug use.					
6. Sometimes I wonder if my drinking/ drug use is hurting other people.					
7. I am a problem drinker/addict.					

8. I am not just thinking about changing my drinking/ drug use; I'm already doing something about it.					
9. I have already changed my drinking/ drug use and I am looking for ways to keep from slipping back to my old pattern.					
10. I have serious problems with drinking/ drug use.					
11. Sometimes I wonder if I am in control of my drinking/ drug use.					
12. My drinking/ drug use is causing a lot of harm.					
13. I am actively doing things to now to cut down or stop drinking/ drug use.					
14. I want help to keep from going back to the drinking/ drug use problems that I had. before.					
15. I know that I have a drinking/ drug use problem.					
16. There are times when I wonder if I drink/use drugs too much.					
17. I am an alcoholic/addict.					
18. I am working hard to change my drinking/ drug use.					

19. I have made some changes in my drinking/ drug use and I want some help to keep from going back to the way I used to drink/use drugs.					

APPENDIX C

GENERAL SELF-EFFICACY SCALE

INSTRUCTIONS

Please read the following statements carefully.
Each one describes how you might feel about seeking treatment for your drinking/drug use problem. For each statement, please place an ***X*** in the box to indicate ***how important*** or ***unimportant*** you think it is right now.
Please ensure that you mark ***only one*** box.

	Not at all important	**Unimportant**	**Unsure**	**Important**	**Extremely Important**
1. I think that seeking treatment will help me get my life in order.					
2. Seeking treatment makes me feel good about myself.					
3. I think that a successful treatment experience will help me be more effective in working toward important goals in my life.					
4. I feel that seeking treatment has long standing positive effects.					
5. Going to treatment may better equip me to cope with problems in the future.					
6. I feel that getting help from treatment is something to be proud of.					
7. I view going to treatment as a sign of strength					
8. I feel I am more sincere in my desire to change if I go to treatment.					

	Not at all important	**Unimportant**	**Unsure**	**Important**	**Extremely Important**
9. I feel that focusing on myself in treatment will decrease my ability to be of help to others.					
10. I see going to treatment as a sign of weakness					
11. I feel I am troubling many people who are important to me by seeking treatment.					
12. I feel that seeking treatment will make me less giving to others.					
13. I worry that my going to treatment will have negative effects on important people in my life.					
14. I think that going to treatment is only for people with problems.					

APPENDIX D

SELF-EFFICACY QUESTIONNAIRE

Please read the following statements carefully.

Each one describes how you might feel about your level of confidence to deal with difficult situations. For each statement, please place an ***X*** in the box to indicate how ***true*** or ***untrue*** you think it is right now.

Please ensure that you mark ***only one*** box.

	Not at all true.	***Hardly true.***	***Moderately true.***	***Exactly true.***
1. I can always manage to solve difficult problems if I try hard enough				
2. If someone opposes me, I can find the means and ways to get what I want.				
3. It is easy for me to stick to my aims and accomplish my goals.				
4. I am confident that I could deal efficiently with unexpected events.				
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.				
6. I can solve most problems if I invest the necessary effort.				
7. I can remain calm when facing difficulties because I can rely on my coping abilities.				
8. When I am confronted with a problem, I can usually find several solutions.				
9. If I am in trouble, I can usually think of a solution.				
10. I can usually handle whatever comes my way.				