Measuring and Enhancing Offenders’ Motivation for Treatment and Change

A thesis submitted to the University of Wales Institute Cardiff in partial fulfilment of the requirement of the degree of Doctor of Philosophy. Psychology - School of Health Sciences. Supervisors: Dr Joselyn Sellen, Dr Andy Watt & Dr Lalage Sanders

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Motivating offenders to engage in a treatment programme is important as engagement in treatment is often seen as an intermediate goal before behaviour change (Ward, Day, Howells & Birgden, 2004). A lack of motivation is a reason why some offenders drop out of treatment (McMurran & McCulloch, 2007; Pelisser, 2007) and dropping out of treatment can lead to an increased risk of recidivism (Cann, Falshaw, Nugent, & Friendship, 2003; Hanson & Bussiere, 1998; McMurran & Theodosi, 2007; Hanson & Harris, 2000).

This thesis reports on the construction, on-going development and testing of a goal-based semi-structured interview procedure that holds potential to explore an offender’s treatment motivation: the Personal Aspirations and Concerns Inventory – for Offenders (PACI-O). A pilot study confirmed the suitability of the PACI-O for use with offenders. Psychometric testing indicated that the PACI-O can identify adaptive and maladaptive motivation profiles in an offender. These motivation profiles were found to be related to the degree to which the offenders in the general prison population engaged in a cognitive skills treatment programme. This indicates that the PACI-O has potential as a measure of offender treatment motivation. Results of a randomised controlled trial indicated that some offenders who complete the PACI-O before treatment engage more in treatment, finish with a better motivation structure and have reduced impulsivity levels (high impulsivity has been linked to recidivism risk; Wong & Gordon, 1998) compared to offenders who attend treatment as usual.

It was concluded that the PACI-O may have utility as an initial assessment of treatment motivation that can highlight problems with an offender’s motivation structure which, if not attended to, may impede on their treatment engagement. Furthermore, due to the additional focus on personal goals, the PACI-O interview procedure may have utility as a brief, time-efficient pre-treatment motivation enhancer.
Declaration

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree

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Statement 1

This thesis is the result of my own investigations, except where otherwise stated. Where correction services have been used, the extent and nature of the correction is clearly marked in a footnote(s).

Other sources are acknowledged by giving explicit references. A reference section is appended.

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Dedication

This thesis is dedicated in loving memory of my grandmother Mrs Florence Iris Campbell.
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* The design of the study, RCT schedule, analyses and reporting of results and conclusions is all the own work of the author of this thesis.

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Introduction to the thesis

Motivation has always been an integral part of personality psychology (Emmons, 1999) and authors differ widely in their definitions of it. Past studies examining motivation have been criticised due to definitions and criteria for measurement being ill defined (Barrett, Wilson & Long, 2003). Klinger & Cox (2004a) note the importance of clearly defining what is meant by ‘motivation’ by each researcher or author. A clear definition of the concept of motivation (including stating motivation for which particular behaviour) allows for a clearer understanding of findings and enables comparisons between studies. Barrett et al. conceptualised motivation as a dynamic process that can be inferred from behavioural referents as well as more global evaluations of internal states. Klinger & Cox (2004a) define motivation as “the internal states of the organism that lead to the instigation, persistence, energy, and direction of behaviour towards a goal” (pp 4-5). Further definitions of motivation are discussed in this thesis and the use of the term in the current research clarified.

Motivation is a concept readily used in offender rehabilitation. Places on prison treatment programmes are limited and an offender’s level of motivation is often used as a selection criterion for entry onto programmes and then in turn motivation is also identified a treatment need; specifically it must be enhanced and kept at a high level throughout the programme (McMurran, 2002). Motivation and readiness for treatment (alongside interventions to enhance both readiness and motivation) are key components for treatment effectiveness (Simpson, Joe, Dansereau, & Chatham, 1997). Motivation is important to engage offenders in treatment and to allow the benefits of treatment to elicit change.
The delivery of accredited offender rehabilitation programmes are an established feature of Western correctional agencies (Casey, Day, Howells, & Ward, 2007) and effective practice in offender rehabilitation has been established thanks to the ‘What Works’ literature (e.g. Andrews, 1995). Rehabilitation can refer to the broad array of psychosocial programmes and services aimed to assist offenders in addressing a range of needs associated with their offending behaviour in order to help them achieve a more satisfying and productive lifestyle (Wormith et al., 2007). Accredited schemes allow for the successful execution of large-scale offender treatment programmes that in turn aim to lower recidivism (Blud, Travers, Nugent, & Thornton, 2003). However, with the limited resources available, it is important that that those who attend such programmes engage fully in order to reap maximum rewards. Additionally, it is also vital that ways are found to boost reluctant offenders’ motivation for treatment. This thesis examines offender motivation for treatment and, by proxy, motivation for change. Willingness to enter, engage and complete treatment is often seen as being indicative of motivation to change; although this more accurately describes motivation for treatment, it can be suggestive of motivation for change (McMurran, 2004).

At present there is no universally agreed way of measuring or enhancing offender motivation. Thus, there exists a need to develop reliable and valid means of assessing, measuring and enhancing offender motivation for treatment and change. This will further our understanding of offender motivation and inform on how best the effectiveness of treatment can be boosted in order to bring about lasting behaviour change in treated offenders. Chapter 1 of this thesis examines the body of literature regarding the current perspectives of offender treatment, the constructs of offender motivation for treatment and how this impacts on treatment engagement and subsequent behaviour change. An argument for reliable measures and enhancers of offender motivation for treatment is presented as well as identification of the
difficulties in creating such methods. Chapter one also examines how a goal-based model of motivation, and the resulting assessment instruments, may provide an insight into offender motivation for treatment and change. This sets the scene for the development of a new potential assessment and enhancer of offender motivation: The Personal Aspirations and Concerns Inventory—for Offenders (PACI-O). Chapter 2 details the construction and results from the pilot study of the new PACI-O with a sample of 22 adult male offenders. This pilot study supports the PACI-O’s suitability for use with offenders and suggests how future work could explore the potential of the PACI-O with offenders.

Chapter 3 details the methodology for a Randomised Controlled Trial (RCT) feasibility study conducted at two UK prison sites and with 111 offenders. The chapter explores the methods used and discusses the strengths and limitations of such an approach with offenders. The sample characteristics of the offenders used in the current studies are also detailed. The breakdown of offenders in each study and condition within the trial are explicitly stated. Any changes to the sample stated in this chapter are mentioned in the applicable chapter. The aim of the RCT was to evaluate whether the act of offenders completing the PACI-O before treatment enhanced treatment effectiveness compared to completing treatment as usual. ‘Treatment effectiveness’ is measured by degree of treatment engagement, reductions in levels impulsivity and improvements in motivation structure following treatment. Offenders in the RCT trial were due to attend the prison-based Enhanced Thinking Skills treatment programme.
In chapter 4, evidence for the validation and reliability testing of the PACI-O is reported with 113 adult male offenders. Construct validity is assessed through exploratory factor analysis and internal reliability explored through Cronbach’s alpha. Other forms of psychometrics are examined in following chapters. Chapter 5 looks at the construction and psychometric testing of a brief and practical measure of treatment engagement used in the current studies. Chapter 6 evaluated the PACI-O as a measure of offender motivation. Scores on the PACI-O are correlated with treatment engagement and the predictive validity of the PACI-O discussed. Additionally, the potential of the PACI-O to be used as an outcome measure to monitor progress in treatment will be evaluated.

In chapter 7 the results of the RCT are presented and discussed with regard to the potential of the PACI-O being used as a pre-treatment motivation enhancer. In chapter 8, an exploration of offender motivation and the construct of ‘subjective well-being’ are detailed following studies with the PACI-O. This study assessed some of the factors that may affect offender motivation for treatment and change. Finally, in chapter 9, the general discussion focuses on the strengths and limitations of the current studies, the implications and potential uses of the PACI-O and recommendations for future research.

The PACI-O is a new tool and therefore its potential as a measure or enhancer of offender motivation requires examination. The preliminary investigations in this thesis allow for the assessment of the PACI-O’s capabilities and provide suggestions for its refinement for a specific use with offenders.
Published papers and conference presentations from this thesis

Co-authored publications:


Conference presentations:

- Oral presentation on The Personal Aspirations and Concerns Inventory- for Offenders (PACI-O) at the British Psychological Society- Division of Forensic Psychology- conference in July 2007 (Pilot study, chapter 2).
- Oral presentation on the validity and reliability of the Personal Aspirations and Concerns Inventory- for Offenders (PACI-O) at the British Psychological Society- Division of Forensic Psychology- conference in July 2009 (chapter 4).
- Oral presentation on the future directions of the Personal Aspirations and Concerns Inventory- for Offenders (PACI-O) at the International Association of Forensic Mental Health conference in Edinburgh, July 2009 (preliminary results of the RCT studies presented in chapters 6 &7).
- Oral presentation on the potential uses of The Personal Aspirations and Concerns Inventory- for Offenders (PACI-O) at the Psychology Postgraduates annual conference in July 2009 (details of the RCT studies presented in chapters 6 &7).
Chapter 1- Offender motivation for treatment and goal-based theories of motivation. A literature review.

1.1 Offender treatment and traditional approaches to offender rehabilitation

The Ministry of Justice report (2009) states that during 2007, 39% of adult offenders were reconvicted of an offence within a year. Recidivists tend to have poor social support, antisocial lifestyles, and poor self-management strategies (Hanson & Harris, 2000). O’Neill (2002) has identified nine factors that are thought to have a large impact on recidivism. These are: education, employment, drug and alcohol misuse, mental and physical health, attitudes and self-control, institutionalisation and life-skills, housing, financial support, and debt and family networks. A multitude of agencies are encouraged to work together to move offenders back into the community (police, probation, mental health agencies and clinicians) (Wormith et al., 2007).

One of the seven ‘pathways’ introduced as part of the Government’s Reducing Re-Offending National Action Plan (Home Office, 2004) is ‘Attitudes, Thinking and Behaviour’. This particular pathway mainly involves the implementation of cognitive-behavioural programmes which increase motivation and help equip offenders with the thinking skills needed to benefit from other services offered under the other six pathways (Maguire & Raynor, 2006). The help that offenders receive socially and practically may help to maintain motivation levels and resolve obstacles to progress (Maguire & Raynor, 2006). It is likely to be a two-way process as Maguire & Raynor (2006) claim offenders who are adequately motivated are more likely to make use of whatever help is available and be able to overcome obstacles on release.
The rehabilitation of offenders is an important component of crime prevention (Levenson, Macgowan, Morin, & Cotter, 2009). Wormith et al. (2007) note that rehabilitation often refers to various programmes and services whose purpose is to help offenders address their offending needs and live more productive and satisfying lives. Effective practice in offender rehabilitation has been established thanks to the ‘What Works’ literature (Andrews, 1995; Maguire, 1995). By offender treatment ‘working’ what is usually meant is a reduction in the number of victims of crime (McMurran, Sellen & Campbell., in press). However, there also exist more subtle forms of treatment effectiveness such as reduction in crime severity or frequency of reoffending (Ministry of Justice, 2009).

Research has suggested that cognitive-behavioural treatments are most effective in reducing recidivism (McGuire, 2002). Aos, Miller and Drake (2006) noted, following a review of just under 300 evaluations of correctional programmes spanning 35 years, that cognitive-based programmes were estimated to reduce recidivism rates by 8%. Other meta-analytic reviews found that cognitive-based treatments reduced general and violent recidivism by 15-20% (Dowden & Andrews, 2000; Tong & Farrington, 2008) and sexual recidivism by approximately 30% (Hanson et al., 2002; Lösel & Schmucker, 2005). Offending rates were reduced by 14% at 2-year follow-up for offenders attending the cognitive-behavioural treatment programmes Reasoning and Rehabilitation and Enhanced Thinking Skills (ETS) compared to matched untreated controls (Friendship, Blud, Erikson & Travers, 2002). However, recent evidence has been more mixed regarding the long-term effectiveness of ETS in reducing re-offending rates (e.g. Cann, Falshaw, Nugent, & Friendship 2003). Casey, Day, Howells, and Ward (2007) suggest that cognitive skills training may be more appropriately viewed as a foundation for subsequent programming.
Nevertheless, McDougall, Perry, Clarbour, Bowles, & Worthy (2009) conducted a large scale randomised controlled trial to assess the effectiveness of ETS. They concluded that ETS significantly reduces impulsivity levels in offenders, and research has shown impulsivity is associated with offending behaviour (Blackburn, 1972; Eysenck & McGurk, 1980; Mak, 1991; Robinson, Porporino, and Beal, 1998; Wong & Gordon, 1998). This reduction in impulsivity was maintained at 3 month follow-up. However, future work is required to assess if this change can be maintained long-term and if it translates into a reduction in recidivism for these offenders.

Overall, offender treatment programmes have shown potential in reducing recidivism rates. However, it is important that such programmes are underpinned by a robust theoretical understanding of offending behaviour and change.

1.2 The risk, need responsivity model

Recent research suggests that offender treatment programmes are most effective when they adhere to the ‘risk, need, responsivity’ (RNR) model and principles (Andrews & Bonta, 2003; Blud, Travers, Nugent, & Thornton, 2003; McGuire, 2002). The RNR model is underpinned by psychological theories of criminal conduct (Andrews & Bonta, 2003) and treatments based on the RNR model have been shown to successfully reduce recidivism (Andrews, Bonta & Wormith, 2006). The RNR model is the dominating theory and approach to offender treatment. It states the three core principles of, (1) risk (treatment should target high risk offenders), (2) need (target factors - often called dynamic risk factors or criminogenic needs- that relate to offending), and (3) responsivity (matching delivery style of the intervention to the offenders’ needs) should be followed and adhered to during treatment.
Within a RNR framework the main aim of rehabilitation is to minimise harm and risk to the community (Marshall et al., 2005).

It is widely acknowledged that programmes intended to reduce recidivism are most effective when pitched at offenders who are at medium to high risk of re-offending and who have high levels of criminogenic needs in the area that the programme is designed to target (Howells & Day, 2006). Hanson & Harris (2000) refer to dynamic risk factors (or criminogenic needs) as changeable characteristics, which when changed correspond to an increase or decrease in recidivism. Some examples of criminogenic needs include: anti-social attitudes, poor self-control, substance abuse and family dysfunction. They also state that dynamic risk factors can be divided into two categories: stable dynamic risk factors (those that are unlikely to change for months or years e.g. alcoholism) and acute dynamic risk factors that change by the minute, hour or day (e.g. mood, intoxication). Hanson & Harris (2000) state that interventions should target stable dynamic risk factors to bring about enduring change. They note that acute dynamic risk factors have little relationship to recidivism.

The responsivity principle states that treatment should be matched to an offender’s motivation, learning style and cultural identity. It should be delivered in a style that will allow offenders to absorb the content of the treatment to make the appropriate behavioural changes (Ward & Marshall, 2007). An offender’s motivation to engage in therapy and change their offending behaviour is one of the variables considered when thinking of specific responsivity (McMurran & Ward, 2004). Ward, Melser and Yates (2007) note that a 4th principal of the RNR model exists in the form of ‘professional discretion’. In short, the authors describe this as under certain circumstances, clinical judgment should overrule the other 3 principles, thus allowing for treatment flexibility and innovation. (See Andrews & Bonta, 2003 for a full review on the RNR model).
Despite the popularity and influence of the RNR model, it is not without criticism. Ward & Marshall (2007) claim critics of the RNR model propose that it is difficult to motivate offenders when the predominant emphasis is on risk reduction. The authors also note the RNR downplays the relevance of contextual or ecological issues and translates, in practical terms, to a ‘one size fits all’ approach ignoring individual needs and value. It is claimed that the RNR model does not deal sufficiently with the issue of offender motivation in treatment (Ward et al. 2007). Another of the proposed weaknesses of the RNR model is that it pays inadequate attention to non-criminogenic needs including personal distress and low self-esteem, which Ward et al. (2007) state are important in terms of how they may affect offender responsivity (e.g. impact on therapeutic alliances and hamper the delivery of RNR interventions). However, Ward et al. (2007) acknowledge that, despite theoretical, policy and practice weaknesses, the RNR model has resulted in reduced recidivism rates.

1.3 The Good Lives Model. A strength-based approach to offender rehabilitation

A recent positive strength-based social cognitive model of offender rehabilitation theory is the Good Lives Model (GLM; Ward & Brown, 2004; Ward & Stewart, 2003). This introduces the construct of ‘primary human goods’ which are described as “states of affairs, states of mind, personal characteristics, activities or experiences sought for their own sake and which are likely to increase psychological well-being if achieved” (Ward, Vess, Collie, & Gannon, 2006, p.382). The nine proposed primary human goods are shown in Table 1 below.
The GLM focuses on equipping offenders with capabilities and skills to achieve primary human goods in a personally meaningful and socially acceptable manner (Ward, 2002). The GLM assumes that, like other human beings, offenders seek satisfaction in certain life areas. The motivational construct used in the GLM is goals; the offenders need for primary goods leads to goal formation, goal pursuit and goal attainment (McMurran & Ward, 2004). Ward et al. (2007) introduced the Good Lives Model–Comprehensive (GLM-C) which details more of the etiological and clinical assumptions of the model (see Ward & Gannon, 2006 for more details). Ward et al. (2007) claim that the GLM-C shows promise as a new theory of sexual offender rehabilitation. This is because it is based on positive psychology and can incorporate ideas from the RNR model (Ward et al., 2007). The authors argue this highlights the GLMs external consistency, unifying power and potential for explanatory depth. Ward et al. (2007) state that the fact the primary goods stated in the GLM-C converge with those identified in other disciplines such as quality of life research, studies on well-being and even evolutionary psychology supports the external consistency of the GLM theory.
1.4 Offending and the Good Lives Model

Offenders are naturally inclined to seek a range of primary human goods that once obtained produce a sense of meaning and greater fulfillment to the individual’s life (Ward & Marshall 2007). Ward & Marshall (2007) state that although it is likely all goods need to be present to evoke a sense of well-being, it is typically the case that the weight given to various goods fluctuates from person to person.

“Individuals can draw from cultural, social, psychological, and biological resources to pursue their vision of a good life, that is, a life characterized by commitment to core values and personal projects that seek to realize them in specific environments (Ward & Marshall, 2007, p 287).”

According to the model, difficulties may arise for offenders in a number of ways. Problems may arise due to the way the offender goes about achieving the sought primary goods, or when the offender fails to seek the full range of human goods, or when they lack the internal and external conditions necessary to achieve such goods (Ward, 2002). Internal conditions make reference to cognitive, emotional and behavioural skills whilst external conditions refer to being able to access resources, opportunities and support (Ward & Marshall, 2007). Criminogenic needs may represent the distortion of the required internal and external conditions needed to secure primary human goods (McMurran & Ward, 2004). It is thought necessary to instil offenders with the internal and external capabilities or resources to seek out and live better lives while focusing on obstacles (e.g. defensive strategies, skills deficits, maladaptive attitudes and lack of social support) that have been interfering in the acquisition of the individual’s fundamental primary human goods (Ward, 2002).

Ward et al. (2007) state the growing acknowledgement at the potential usefulness of using offenders’ interests and strengths to promote change. The promotion of human goods in
offender treatment, as well as that of risk management, is increasing in popularity (Ward et al., 2006). If offenders are equipped with the skills and capabilities required to achieve goals in a socially acceptable way then it is suggested it may be possible to abolish the ‘distortions’ or ‘flaws’ in their plans, therefore such ‘criminogenic needs’ will be eliminated (Ward et al., 2006). A well-developed GLM, and the necessary support, is likely to deal with all criminogenic features (Ward & Marshall 2007).

The GLM is based around both promoting goods and reducing risk (Ward & Marshal 2007). Rather than being a ‘magic bullet’ of offender rehabilitation treatment, Whitehead et al. (2007) state that the GLM in conjunction with a risk management approach could be extremely effective. Ward et al. (2007) note that dialogue between the RNR model and a model such as the GLM could result in an integration of the two theories or an implementation of the two theories directed at different facets of offender rehabilitation (e.g. with the GLM being able to deal with the issue of offender motivation, and could therefore supplement the RNR model in this respect).

To maximise treatment effectiveness it may be beneficial to combine a risk management approach with a strength-based approach (Marshall et al., 2005), such as the GLM. Additionally, McMurran & Ward (2004) suggest an amalgamation of GLM with goal directed theories would result in a framework that would allow the systematic examination of an offender’s motivation to engage in therapy and change their behaviour. When treatment is more focused on obtaining outcomes in pro-social ways that are of value to the offender, offenders are more likely to see therapy as relevant to them (Whitehead, Ward & Collie, 2007), as opposed to when treatment is based on a ‘one-size-fits-all’ approach.
Ward et al. (2007) warn against concentrating too much on either promoting the offender’s goods or managing risk. They argue that focusing on either to the detriment of the other could have disastrous social and personal consequences. The GLM is a theory that is increasing in popularity. However, caution is warranted as the GLM has been criticised for lacking empirical support (Bonta & Andrews, 2003). Ogloff and Davis (2004) state that caution must be warranted regarding the GLM until it has been empirically tested. They note that expanding the focus to acknowledge offender needs may not result in additional reductions in re-offending. As well as a waste of scarce resources this may lead to the reinforcement of criminality which could lead to an increase in recidivism. They argue that the GLM principles could be incorporated and accommodated into a wider concept of responsivity, rather than conceptualised in a new model. Incorporating aspects of the GLM into the RNR concept of responsivity may result in an increase in offender motivation that could further boost treatment success. The notion of motivation being an important component in the change process is not new (Barrett, Wilson & Long, 2003) and studying this construct may be useful.

1.5 The importance of offender motivation for the treatment process

According to the Social Exclusion Report (2002), the average cost for each prisoner to attend a cognitive behavioural programme such as ETS is £2000. With the limited resources available it is important that those who attend offender treatment programmes engage in order to reap maximum rewards. Additionally, ways are also needed to boost reluctant offenders’ motivation for treatment. An offender’s level of motivation can be viewed as both a selection criteria and treatment need (McMurran, 2002). Motivation is also sometimes assessed in order to establish the suitability of the treatment and to match the intervention to the needs of the offender (Tierney & McCabe, 2002). Nevertheless, an offender may present
with little internal motivation at the beginning of treatment, however, the hope is that through engagement with the treatment programme this motivation will develop (Day, Tucker & Howells, 2004). Offenders may be unmotivated to change or unable to change, however this can lead to the impression that the problem resides in the offender and there is nothing that a therapist can do (Lopez Viets, Walker & Miller, 2002). However, the role of the therapist is to elicit motivation in the offender in treatment (Lopez Viets et al., 2002).

In order for treatment to be effective, it may be necessary that the offender completes the treatment programme. Motivating offenders to fully engage and complete a prison treatment programme is imperative, as there is evidence to suggest that offenders who drop out of treatment may be at higher risk for recidivism than both untreated offenders or those who complete treatment (e.g. Cann et al., 2003; Hanson & Bussiere, 1998; McMurran & Theodosi, 2007; Hanson & Harris, 2000). Treatment refusers or non-completers have six times the rate of sexual and violent recidivism than completers (Seager, Jelicoe, & Dhaliwal, 2004). McMurran & Theodosi (2007) undertook a systematic review that examined the recidivism rates of treatment completers, non-completers and matched controls that were not offered treatment. They found that (1) completers of treatment were least likely to offend, and (2) non-completers recidivated at a higher rate than untreated controls. They state that this finding is unlikely due to higher risk offenders being less likely to complete treatment as it was assumed that high-risk offenders would also exist in the untreated control groups.

The non-completion rate for cognitive prison treatment programmes stands at approximately 9% for adult offenders and 14% of young offenders (Cann, et al., 2003). As well as raising the risk of recidivism, programme non-completion has implications for the cost-effectiveness of treatment, i.e. treatment drop-out leaves groups running with less than optimal numbers (McMurran & McColloch, 2007). Programme non-completion also raises
concerns regarding inappropriate targeting of resource and whether treatments are responsive and relevant to offenders’ needs (McMurran & Theodosi, 2007).

Hanson et al., (2002) propose that treatment drop-outs can be high risk for recidivism for a number of reasons. For example, drop-outs are likely to have pre-existing characteristics that are related to reoffending risk. These characteristics include impulsivity and unstable lifestyles (Wierzbicki & Pekarik, 1993). Additionally, Hanson et al. note that the motivation for terminating treatment is often correlated with factors related to recidivism such as offender hostility toward authority and noncompliance. Therefore, baseline characteristic of some offenders who drop out of treatment may mean they were already at higher risk of reoffending. Beyko & Wong (2005) looked at potential attrition predictors under the RNR principles. They found that non-sexual criminogenic needs such as aggression and rule violating behaviour (as well as responsivity factors such as lack of motivation and denial) were the main clusters that correctly classified 95.3% of program completers and non-completers. However, Beyko & Wong (2005) say that predictors of treatment attrition are specific to the treatment programme and sample under study (and the interaction between the two). Predictors used in various studies vary considerably and rarely are they theoretically based; therefore consistent findings across studies are hard to obtain (Pelisser, 2007). Hanson et al. (2002) state that interrupted treatment may result in “making offenders worse”. They suggest this may be due to the initial stages of treatment mean offenders are being introduced to deviant role models and pro-criminal attitudes.

Other potential reasons for the increase in recidivism risk of drop-outs include: insufficient time to address problems that the offender raised in treatment, failure giving rise to feelings of helplessness and an inability to bring about change to their lives or an angry antisocial reaction against change may have been triggered in those that have been excluded
(McMurran & Theodosi, 2007). Some of the reasons given by non-completers of ETS include that the programme was not relevant to their most pressing needs, it was too hard or patronising, or that they were not keen on group work (McMurran & McCulloch, 2007). Thus, the degree to which a person finds treatment relevant may be associated with their future risk of reoffending (Ward et al., 2007). McMullan, Theodosi, & Sellen (2006) suggest that because non-completion of treatment may have a damaging effect, it is important to maintain motivation for completion of treatment programmes.

However, whether it is simply a matter of completing the treatment programme that allows treatment to be effective or whether offenders have to actively engage in the therapeutic process is debatable. Levenson et al. (2009) argue that treatment is not something that is "done" to the client; rather, it is a collaborative process and a joint effort to work on treatment goals that are meaningful for personal growth and change. Hiller, Knight, Leukefeld and Simpson (2002) state that studies of community based substance-abuse treatment programmes suggest motivation for treatment is essential for client retention and for their becoming therapeutically engaged in the process. Nevertheless, they state a client may stay in treatment but remain psychologically detached from it and not become cognitively committed to the therapeutic process. It has been noted that recidivists tended to be less engaged in treatment than non-recidivists (Hanson & Harris, 2000). In order to elicit behaviour change in treatment, the client needs to make an effort to attend and participate in treatment as well as disclose feelings and thoughts, refraining from old behaviour and practising new behaviour both during and between treatment sessions (Drieschner & Boomsma, 2008); therefore, active engagement in the process is paramount. To become actively engaged, treatment motivation is thought to be vital (Hiller et al., 2002). Engagement in treatment is often seen as an intermediate goal before change in criminogenic need occurs (Ward et al., 2004) with
increased engagement leading to more favourable treatment outcomes (Simpson, Joe, Rowan-Szal & Greener, 1995).

On the other hand, Seager et al. (2004) state that treatment participation is not related to recidivism; instead, treatment merely enables motivated offenders to concretely demonstrate their commitment to a pro-social life and not reoffend. They argue that the most helpful post-treatment criteria is simply whether the offender completed treatment or not, without attention to the quality of the offenders’ participation. They concluded that such attention to treatment participation details may be ‘superfluous’ in the context of predicting recidivism.

Whether level of engagement in treatment is linked to treatment effectiveness and recidivism is debatable. However, evidence suggests lack of motivation may lead to an increased risk in treatment drop-out and this itself is likely to increase risk of recidivism. Thus, an argument exists that instruments and techniques need to be developed to assess, boost and maintain offenders’ motivation for treatment both before treatment for recruitment purposes and throughout the process to discourage drop-outs and bring about change.

The successful completion of a treatment programme is dependent on maintaining motivation throughout the programme (Barrett, Wilson & Long, 2003). Non-completers have been found to rate themselves as less motivated than completers (McMurran & McCulloch, 2007) and Pelisser (2007) also found that treatment retention and completion was associated with higher initial motivation scores. Therefore, it could be proposed that only highly motivated offenders have access to treatment in order to reduce the chances of treatment drop-out. Indeed, some interventions target the most motivated offenders as they believe these offenders are the ones most likely to change their behaviour (Tierney & McCabe, 2002). However, if treatment attrition is not addressed appropriately then those who require treatment
the most will not receive the treatment they need (Beyko & Wong, 2005). Therefore, it may be imperative to identify those offenders with low motivation and boost and maintain their motivation both before and during treatment. To minimise potential attrition it may be helpful to assess how likely offenders are to engage in treatment before they attend the program (Day et al., 2009), and ways should then be sought to boost low motivated offenders’ motivation.

Pelisser (2007) notes that predictors of treatment retention can be separated into two types: ‘fixed’, for example demographic factors, history of violence and type of offence and ‘dynamic’ factors such as self-esteem and motivation. Dynamic factors are important as they further our knowledge of which variables are consistently related to treatment retention, and can therefore have implications for treatment improvement (Pelisser, 2007). The exact mechanisms are not known, but dropping out of treatment is a reliable and robust predictor of recidivism (Hanson et al., 2002).

Working with the dynamic drop-out predictor variable of motivation may lead to new ways to minimise treatment non-completion. Lee et al. (2006) reduced the drop-out rates of sex offenders in treatment by enhancing the offenders’ motivation for treatment via the provision of individual treatment before they were to attend group treatment (in order to get the offenders to accept they needed to work on their problems). Resources could be targeted at those offenders who display known risk factors for dropping out of treatment (for example, aggression, hostility and rule-violating behaviour) in order to encourage participation and retention in the programme.

Finally, the area is further complicated due to differential reasons for non-completion of treatment programmes. Some offenders drop-out of treatment as they do not wish to participate anymore, whereas some offenders are excluded from the group (McMurran &
McCulloch, 2007). The reasons for treatment non-completion must be made explicit in order to allow for comparisons across studies and a deeper understanding of such issues.

1.6 Offender motivation for treatment

Deci & Ryan (2000) talk of the need for competence, autonomy and relatedness in their self-determination theory and distinguish between intrinsic and extrinsic motivation (thought to exist on a continuum). Intrinsic motivation is viewed as something that is pursued for its own sake, whereas extrinsic motivation arises more from external factors. Intrinsic motivation should be enhanced during treatment as intrinsic motivation is associated with better treatment outcomes and long-term change (Deci & Ryan, 2000). As noted, an offender may present with little intrinsic motivation at the beginning of treatment, however, the hope is that through engagement with the treatment programme this motivation will develop (Day et al., 2004).

Individuals who are legally coerced into treatment tend to have lower intrinsic motivation, appear less ready for treatment, are harder to treat and report less satisfaction with treatment than voluntary clients (Sia, Dansereau & Czuchry, 2000). However, Howells and Day (2003) believe the status of the offender, in terms of whether they entered treatment voluntarily or were mandated, does not in itself inform on their readiness for treatment. Nevertheless, if the offender does not believe that treatment will fulfil personal goals, the mandated status could become an issue that would reduce readiness (Day et al., 2004). The level of intrinsic and extrinsic motivation an offender holds can be measured with the Treatment Motivation Questionnaire (Ryan, Plant & O’Malley, 1995).

Klinger & Cox (2004a) express a different distinction between intrinsic and extrinsic motivation to Deci & Ryan. They view intrinsic motivation as something that is pursued for its
own benefit and extrinsic motivation is where an action is a stepping stone to achieve something else. There is likely to be an element of extrinsic motivation when offenders accept treatment (privileges, parole release etc) with the intrinsic motivation being freedom and engagement in treatment needed to gain freedom (McMurran et al., in press).

1.7 Measuring offender motivation for treatment and change

It has been established that motivation plays an important role in offender treatment by predicting and preventing treatment drop-out and its damaging consequences. Motivation is dealt with under the remit of responsivity in the RNR model. However, measuring motivation has its own inherent problems. Due to its very nature, assessing and measuring motivation in individuals is challenging. Because motivation is often viewed as an internal state, the study of it has always been determined by psychologists as difficult (Locke, 1996). Assessing ‘genuine’ motivation may be even more difficult to gauge in an offender population.

Motivation involves assessing whether the offender wants to enter treatment and change, and the judgement that an offender is motivated for treatment is a prediction that he/she will engage in and complete treatment (Ward, Day, Howells & Birgden, 2004). An offender’s level of motivation is typically determined by self-report and their response is then taken as legitimate by clinician. Although this method has its uses, such measures have been labelled transparent and superficial (e.g. McMurran, 2004). Such a method may fail to take into account that due to external factors (such as conditions of release), offenders may present their intentions to change in a positive light. This would therefore minimise restrictions and sanctions that could arise upon declaration of low motivation. The reported perceptions, attitudes and motivation may be distorted by issues such as lack of insight, impression management, and cultural factors (Gudjonsson, Young & Yates, 2007). However, Walters (2006) found that despite some of the limitations of the method, self-report was more effective
than traditional offender risk appraisals at accessing internal events such as beliefs, expectancies and change. They also argue that self-report measures may account for the same level of unique variance in crime-relevant outcomes as risk appraisals. Thus, offender self-report may be a relevant and useful means to assess offender motivation.

Another method of assessing offender motivation for treatment is to ask a member of staff. However, McMurran et al. (2006) note that staff may not be able to accurately and precisely assess an offender's internal state. Motivation may be too complex a construct for simple means of assessment and it may be hard to disentangle a ‘genuine’ desire to change from offenders faking a desire to change in response to external sources. Nevertheless, McMurran (2004) notes that while trying to establish the accuracy of an offender’s claim of commitment to change is important, it may be beneficial to capitalise on any expression of willingness to change regardless of the origin of this motivation (intrinsic or extrinsic); and this can be achieved by examining the structure of the offender’s motivation by person-centred means thus nurturing whatever level of motivation may exist. Additionally, as noted, extrinsic motivation may become intrinsic motivation throughout the treatment process (Day et al., 2004).

Gudjonsson et al. (2007) note that, despite the recent interest in the issue of offenders’ motivation to engage in therapy, very little has been done to establish measures that assess what factors conceptually relate to motivation. The need to assess a candidate’s appropriateness for offender rehabilitation treatment is apparent, yet there is a lack of validated tools for this purpose (Casey et al., 2007). One instrument currently employed to assess offender motivation is the University of Rhode Island Change Assessment (URICA; McConnaughy, Prochaska, & Velicer, 1983; McConnaughy, DiClemente, Prochaska, & Velicer, 1989). This tool is widely used in the addiction field, and is based on the stages of
change model, formerly the transtheoretical model (Prochaska & DiClement, 1983). The stage of change model posits that an individual engaging in the change process will pass through a number of discrete phases from pre-contemplation (where they feel they don’t have a problem to address), contemplation (acknowledgement but some ambivalence), action (where they are making the necessary changes) and maintenance (maintaining changes) stages. Rollnick, Heather, Gold and Hall (1992) developed a brief self-report readiness to change questionnaire for use with excessive drinkers based on the stages of change model in order to assign the most appropriate treatment given their ‘stage’. Heather, Rollnick, and Bell (1993) tested the predictive validity and stated that stage of change was a positive predictor of changes in alcohol consumption even when other predictors were taken into account. The Anger Readiness to Change Questionnaire (ARCQ; Williamson, Day, Howells, Bubner & Jauncey, 2003) was recently developed and has potential to measure which offenders are most suitable for anger management interventions. This 12 item questionnaire was adapted from the Readiness to Change Questionnaire (RCQ; Heather & Rollick, 1993) and is based on a stages of change model.

However, despite regularly being used, there exists limited research on the efficacy of the stages of change model with offending populations (McMurran, 2004; McMurran et al., 2006) and as a result it lacks merit as an assessment of offender motivation (McMurran et al., 1998, McMurran et al., 2006; Casey, Day & Howells, 2005). Additionally, recent evidence suggests that change may not occur in genuine stages (West, 2005). Burrowes & Needs (2009) state that a stages of change model has limitations that include problems with measuring the constructs, theoretical coherence and level of explanation offered by the model. However, the stage model and URICA have been beneficial in helping practitioners view motivation as a quality that can be changed, rather than as a static trait (McMurran, 2009).
Drieschner & Boomsma (2008) developed the Treatment Motivation Scales for Forensic outpatients (TMS-F) which is a self-report questionnaire used for measuring both motivation to engage in treatment, and six hypothesised cognitive and affective determinants of motivation (problem recognition, distress, perceived legal pressure, perceived costs of treatment, perceived suitability of treatment and outcome expectancy). The authors say these internal determinants of motivation are important as they are the factors typically addressed by motivational interventions. While this scale shows promise, it is important to not automatically generalise these results to populations other than forensic outpatients. The relative impact, or even the nature, of the noted internal determinants could vary for individuals attending treatment in various settings.

Gudjonsson et al. (2007) developed and assessed three scales that aimed to identify and measure factors that could prove to be obstacles to therapeutic success (therapeutic success being viewed as engaging and benefitting from treatment and motivation to change). One scale was the 16 item Patient Motivation Inventory (PMI) which purports to measure internal motivation to engage in treatment and also confidence that the unit can deliver what is necessary for their needs. The second scale was the 29 item Patient Perception Questionnaire (PPQ) that aims to measure perceptions and attitudes towards treatment and readiness for discharge (Gudjonsson et al., 2007). The final devised scale was the 13 item Patient Attitude Questionnaire (PAQ) measuring patient dissatisfaction with the unit and the experiencing of stress. Alone, these scales appear to be able to measure conceptually meaningful factors, and when combined can assess general lack of motivation to engage in therapy and change (Gudjonsson et al., 2007). This study was conducted on 116 mentally disordered patients resident in 3 medium secure units and an open forensic ward in England.
Gudjonsson et al. (2007) argue that these scales can be utilised within forensic services by identifying attitudes and perceptions that may be a hindrance to motivation to engage with treatment and change. Once identified these problem areas can be targeted for change and incorporated into the offender’s care and treatment programme (Gudjonsson et al., 2007). The study highlighted the importance of the setting in which the treatment takes place, as significant differences between the units on several of the subscales emerged. The authors note this could be due to differences in client characteristics or demonstrate fundamental problems on some units (e.g. model of treatment used, structure, staff or client dynamics). The study provided robust preliminary evidence for the reliability, validity and utility of the scales as both clinical and research tools (Gudjonsson et al., 2007). However, these were preliminary investigations and further work needs to be undertaken (and with other populations) to assess if the results can be generalised. Additionally, the above scales, while informative, rely exclusively on a tick box self report and may not have the scope to fully explore the range of concepts associated with offender motivation.

Garner et al. (2007) argued the need for validated instruments to measure client motivation for drug-abuse treatment. They examined the psychometric properties of the Criminal Justice Client Evaluation of Self and Treatment (CJ CEST) with 3,226 offenders at 26 corrections based treatment programmes. The CJ CEST instrument contains scales that purport to measure and assess treatment motivation, psychosocial functioning, treatment engagement and criminal thinking. They found good reliability and validity and concluded the scale can effectively measure clients’ needs and functioning at intake and also monitor progress over the course of the treatment programme. They state that programme effectiveness is often measured by outcomes such as criminal activity months or years later, however, this can be complemented by assessing the impact a programme has on offender functioning.
during the programme. They state that this is because the goal of treatment is often improvements in offender functioning and this interim criterion is an appropriate dynamic indicator of programme effectiveness and guide for change. However, this scale has been validated on offenders attending drug-abuse treatment rather than cognitive skills programmes so the specificity of the scale may limit generalisability until further work is undertaken.

1.8 Motivation for treatment and motivation for change

It is important to distinguish the difference between motivation for treatment and motivation for behaviour change (ceasing offending). McMurran et al. (2006) note that despite being related, motivation for engagement in therapy and motivation to change are not the same. Some offenders are motivated for change but not treatment. There may be reasons, other than lack of motivation for change, why an offender may be unwilling to engage in treatment (Tierney & McCabe, 2002) such as fear of labelling or feelings of hopelessness about the prospect due to past failures (McMurran, 2004). Coerced clients may not be motivated to take part and engage in treatment due to not being ready or able to participate in treatment, or they may be in denial of their problems, or hold the belief that treatment will not resolve the problem (Sia et al., 2000).

Alternatively, there may be offenders who are motivated for treatment (perhaps due to some of the extrinsic reasons mentioned above e.g. for parole decisions) but not behaviour change. The assumption that because an offender is willing to participate in treatment means they are motivated may seem logical; however, willingness to participate is not always predictive of good treatment outcome (Tierney & McCabe, 2002). Finally, it must be acknowledged that motivation alone may not be a sufficient condition for treatment engagement, completion and change. To be ready for treatment, the offender must be
motivated, find the treatment relevant and have the capacities to engage with it (Ward et al., 2004).

Despite these caveats, motivation for treatment is often seen as a proxy for motivation for change, i.e. if an offender is willing to engage in treatment and address their offending behaviour then the assumption is that the offender will detest from offending in the future (Campbell, Sellen & McMurran, in press). Motivation is variable and dependent on external events and internal experiences (Barrett et al., 2003; Howells & Day, 2003). Motivation is dynamic and changeable and the factors surrounding the pursuit of different goals vary (Klinger & Cox, 2004a). Therefore, there exists opportunities for amending and enhancing offender motivation through intervention. Hence, there is a need for valid and reliable assessments of motivation for treatment as a selection criterion and as a treatment need (McMurran et al., 2006). This thesis will focus on offender treatment motivation. However, the parallels (and differences), between motivation for treatment and motivation for change are acknowledged.

1.9 Motivation for treatment and its relationship to treatment engagement and outcomes

“The importance of treatment motivation is mainly based on its assumed relationship with the treatment-related behaviour often referred to as adherence, compliance, or treatment engagement” (Drieschner, Lammers & Van Der Staak, 2004, pp. 1116). McMurran et al. (in press) state that criticism has been levelled at the concept of motivation for treatment and behaviour change in the form of calling it an explanatory fallacy which offers nothing over a description of behaviour such as attending treatment sessions and not reoffending. However, they state that perhaps it is ‘shorthand’ for at least some of the determinants of treatment engagement and behaviour change (Drieschner et al., 2004). Drieschner et al. note that treatment motivation is subject to conceptual confusion that has led to miscommunication,
ambiguous measures and contradictory conclusions of research studies. The authors argue that one reason conceptual ambiguity arises is because of the term ‘treatment motivation’ itself. They state treatment does not automatically designate a particular behaviour per se; therefore, it is unclear what behaviour the motivation refers to. For offenders yet to enter treatment then relevant treatment related behaviour is looking for and entering treatment. However, for those offenders already attending treatment, the concept refers to their engagement during the treatment process (Drieschner et al.). Thus, a distinction should be made between “motivation to enter treatment” and “motivation to engage in treatment” (Drieschner et al.). It is also important to distinguish between the concept of motivation and desires or wishes. Motivation can be based on desire but if the client lacks cognitions such as the belief that the desired outcome can be obtained for a reasonable price, then motivation to engage will be lacking (Drieschner et al.).

Treatment motivation is defined as the offender’s motivation to engage in their treatment and is thought to predict treatment engagement. Treatment engagement is defined as the offenders’ “behavioural engagement as required by the particular treatment approach” (Drieschner et al., 2004, p 1130). The relationship between motivation to engage in treatment and actual treatment engagement is not thought to be directly linear due to offenders lacking the capacity to do what the treatment approach requires (e.g. cognitive, neuropsychological reasons; Drieschner et al.).

It is hypothesised that motivation to engage in treatment depends on six cognitive and emotional internal determinants (Drieschner et al., 2004). Internal determinants of treatment motivation include level of suffering, outcome expectancy (and the related concept of self-efficacy) that is the core variable in the well-known Expectancy x Value Model, the perceived costs of treatment, perceived suitability of treatment, perceived external pressure and problem
recognition (Drieschner et al., 2004). Motivation for treatment is also thought to be influenced by external or general offender factors (for example, circumstances, demographic factors) and is mediated by the internal determinants. Treatment engagement is hypothesised to predict treatment outcome as shown below in Figure 1. However, Drieschner et al. note only a modest relationship should be expected as treatment outcome also depends on the effectiveness of the treatment approach and the degree and persistence of the offender’s problems. The proposed relationship between motivation for treatment, treatment engagement and treatment outcome is shown below in Figure 1.

![Diagram of treatment motivation and related concepts]

**Abbreviations:** PR = Problem Recognition; LS = Level of Suffering; EP = External Pressure; CT = perceived Costs of Treatment; ST = perceived Suitability of Treatment; OE = Outcome Expectancy; MET = Motivation to Engage in Treatment; TE = Treatment Engagement.

**Figure 1.** Integral conceptualisation of treatment motivation and related concepts, Drieschner et al. (2004)

Internal determinants can provide treatment targets for motivational clinical interventions (Drieschner et al., 2004). Drieschner et al. (2004) state the relationship between motivation to engage in treatment and the internal determinants are unlikely to be as
straightforward as the model suggests. They use the example of the concept of learned helplessness where a higher level of suffering may actually result in lower, rather than higher, motivation to engage in treatment (whereas usually the higher the level of suffering the more treatment engagement could be expected). Drieschner et al. (2004) note that measures of internal determinants, motivation to engage in treatment and treatment engagement could be used for the prediction of treatment outcome.

Hiller et al. (2002) examined the effect of motivation on therapeutic engagement in a criminal justice setting. They state that motivation and treatment engagement have multiple determinants. However, Hiller et al. (2002) found that motivation for treatment was associated with psychological indicators of engagement even after controlling for offender attributes that may have confounded the relationship. They state that this highlights the importance of examining the influence of motivation on the treatment process and outcome with offenders. They state offenders who are found to be not as motivated should benefit from specialised readiness interventions. They refer to the following model, shown in Figure 2, where treatment can be viewed as an interrelated chain of internal and external events to the individual (Hiller et al., 2002).
Motivation is a characteristic that an individual presents with at treatment intake. Being the first element in the model means that motivation can be hypothesised to influence the entire treatment process, including post-treatment outcomes. Hiller et al. note that their study supports a link between pre-treatment motivation and the early engagement phase, however they note that more work is needed to assess to what extent higher motivation and greater levels of early engagement are related to long-term outcomes.

Further research is needed to assess the relationship between treatment engagement, changes in dynamic risk factors and behavioural change following attendance on an offender rehabilitation programme (Casey et al., 2007). Hanson & Morton-Bourgon (2005) note in
their meta-analytic review that evaluators have come to the conclusion that many of the variables used in clinical assessments, including low motivation for treatment, had very little relationship to recidivism (for sex offenders at least). However, evidence suggests that motivation may have an impact on treatment engagement and completion which in turn predicts recidivism. Wexler et al. (1999) note that offenders who complete treatment are those with the highest readiness score, but readiness was not found to directly relate to recidivism. They state that this is further evidence for the ‘treatment interaction’ hypothesis which states that motivation or readiness affects treatment and treatment in turn affects outcome, but motivation for treatment does not directly affect treatment outcomes (DeLeon, Melnick, Thomas, Kressel, & Wexler, 2000). Additionally, evidence in this area is complicated by variations in the techniques used to gauge motivation for treatment and treatment engagement itself, therefore making comparisons between studies difficult.

It is also important to link proximal measures of change (changes in treatment targets such as reductions in dynamic risk factors) to changes in distal measures of success such as recidivism (Seager et al., 2004). There is a distinction between three concepts related to long-term offender treatment effectiveness: (1) Re-offending refers to the perpetration of another illegal act. A researcher is unlikely to have access to this information (Falshaw, Friendship & Bates, 2003); (2) Reconviction is a subsequent conviction and is often seen as a proxy for re-offending; and (3) Recidivism is viewed as a lapse into offence related behaviour (e.g. a known sexual offender caught loitering around a school). Recidivism is thought to provide a more sensitive outcome measure regarding the success or failure of treatment for an offender than reconviction (Falshaw et al.). The effectiveness of treatment is often measured by recidivism rates in the literature. However, Wormith et al. (2007) note that recidivism is a “unifying concept without a unifying definition” (p880). By this they mean for some it is
defined as re-incarceration for any reason for others it means re-arrest for any reason etc. Wormith et al. also note that treatment studies have rarely considered severity of recidivism instead of the dichotomous approach. They conclude that to glean further insight into “what works” a more refined and sensitive outcome measure is needed.

1.10 Measuring treatment engagement

“Treatment Engagement” is a term often used in the literature yet there are few measures of the construct (MacGowan & Newman, 2005). Drieschner & Boomsma (2008) noted the lack of conceptually sound measures of treatment engagement and developed the Treatment Engagement Rating scale (TER). The TER is a new reliable and valid therapist-rated instrument that measures treatment engagement in forensic outpatients. Drieschner & Boomsma (2008) argue that for the TER to be useful for clinical practice, several requirements had to be met: (1) It had to be sensitive to spontaneous fluctuations in engagement that occur as a result of motivational interventions; (2) It had to represent a broad domain of treatment engagement not a single concept such as attendance or homework compliance; (3) It had to be applicable for various kinds of offender (different types of offences, mental health problems etc) and treatments (individual and group settings etc) in forensic output settings; (4) It had to be reliable; (5) It had to be short enough to allow regular re-assessments.

Other measures of treatment engagement include the Group Engagement Measure (GEM; MacGowan, 1997). The GEM is therapist scored and assesses individual client engagement in group treatment (MacGowan & Levenson 2003). It includes seven dimensions - attendance, contributing, relating to group leader, relating with members, contracting, working on own problems, working with others group members’ problems (MacGowan,
1997). The GEM has been used to measure treatment engagement with sex offenders in treatment (Levenson & MacGowan, 2004).

1.11 Understanding motivation through the wider construct of readiness to engage in treatment and change

In order to understand, assess and enhance offender treatment motivation it may be necessary to look at the wider constructs it is associated with. Recent focus has turned to the concept of ‘readiness’ and Ward et al. (2004) propose a model of offender treatment readiness named the Multifactor Offender Readiness Model (the MORM). The MORM addresses readiness at the individual offender, programme and context level in order to glean greater understanding of treatment engagement and positive treatment outcomes. Treatment readiness refers to the presence of internal and external conditions that are likely to promote treatment engagement and therapeutic change (Howells & Day, 2003). The authors suggest that the constructs of ‘motivation’ and ‘responsivity’ are, alone, too narrow in scope to cover the myriad of factors that can affect treatment engagement. Both are important concepts, however, and are necessary (if alone, insufficient), aspects of readiness to engage in treatment (Ward et al. 2004). Howells & Day (2003) view the term readiness overlapping somewhat with the related constructs responsivity and motivation. Readiness is thought to be related to responsivity, with readiness being a subset of the responsivity concept. They note motivation is a narrower concept that refers to a cluster of variables that constitute one component of readiness.

It is thought a number of internal and external readiness conditions are required for treatment engagement. The internal readiness conditions required according to the MORM include cognitive, affective, volitional, behavioural and identity factors. Some of the external
conditions required refer to the location, programme and timing. The concepts of the MORM are shown below in Figure 3.

![Figure 3. Model of treatment readiness taken from Ward et al., 2004 (p.660)](image)

Low readiness caused by the presence of characteristics within either the offender or therapeutic situation can result in impaired treatment engagement and diminished therapeutic change (Howells & Day, 2003). Readiness promotes engagement in therapy (Casey et al., 2007). Understanding offenders’ readiness would allow for better awareness of how to assess and enhance such readiness (Burrowes & Needs, 2009) and it would also allow for a greater treatment engagement increasing the probability of good treatment outcomes (Ward et al., 2004).

When considering treatment engagement it may be necessary to take into account not only issues to do with the offender, but also the matter of the wider context such as clinical setting, staff, other group members etc. It is important that the therapist is able to accurately gauge and respond to a person’s responses and ensure that engagement is maintained.
(McMurran et al., 2006). Both client and programme attributes are likely to determine therapeutic engagement for person in drug treatment - for example the extent to which the staff and resources can meet the client’s needs (Broome, Simpson & Joe, 1999). Examination of the construct of therapeutic alliance may help extend research into offender motivation for therapy whilst enriching and enhancing offender treatment programmes (McMurran et al., 2006). Beech & Fordham (1997) note that there are features of a treatment group that are more likely to elicit a positive change such as: cohesiveness, good leadership, an organised group, an environment where members could freely express themselves and a sense of hope being instilled in the members. The atmosphere of the group can strongly influence treatment change (Beech & Fordham, 1997). A predictor of poor treatment performance is also linked to psychological problems; for example, depression is linked to positive outcomes whereas hostility is linked to a negative outcome (Rao, Broome & Simpson, 2004). Short-term treatment change and outcome usually refers to a change in dynamic risk factors targeted by the particular treatment programme or improvement in offender functioning. Long-term change and programme effectiveness refers to a change in offending behaviour, i.e. ceasing offending.

In order to counteract treatment non-completion, Howells & Day (2006) suggest attending to personal characteristics that are likely to impact on treatment engagement. Howells & Day looked at the influence of a set of readiness factors (those related to affect) on the engagement and performance of violent offenders in treatment. They hypothesised that the affective reactions of violent offenders are likely to impact on the extent to which they can successfully engage, and as a result, benefit from, a treatment programme. The three emotional responsivity ‘conditions’ are: (1) access to emotional states; (2) ability to express emotional states; and (3) willingness to express such states in treatment. Failure to achieve
one, or all, of these tasks will result in a lack of meaningful engagement in anger treatment (Howells & Day, 2006). This relationship is highlighted in Figure 4. below.

Low treatment readiness related to lack of access and experience of emotion may be due to an overuse of antecedent-focused (actions performed before emotional responses become fully activated) emotional regulation, whereas low treatment readiness related to unwillingness to disclose emotions could be due to overuse of consequent focused regulation strategies (actions performed during the emotion to regulate the response; Howells & Day, 2006). A lack of flexibility of emotional regulation strategies in offenders may be due to traumatic experiences, and this damage to affective regulation leads to a reduced capacity to
engage in treatment and may lead to treatment non-completion (Howells & Day, 2006).

Howells & Day (2006) recommend attending to affective determinants (as well as cognitive, behavioural and volitional aspects) in order to assess and improve treatment readiness and equip clients with the skills needed to benefit from treatment.

Howells & Day (2003) noted that another impediment to effective treatment is inadequate attention to the context of personal goals. For some offenders, offending behaviour may aid personal goal achievement (for example violence could increase social status or anger could remove obstacles in the way of goal achievement; Howells & Day, 2003). Therefore, if the goals of treatment are not congruent with the offender’s personal goals then this may prove to be an impediment to readiness to change.

The MORM may result in the broadening of the study of offender treatment engagement and behaviour change by acknowledging intrapersonal, interpersonal and contextual factors and how they interact (McMurran et al., in press).

Burrowes & Needs (2009) propose the Readiness to Change Framework (RCF). This theoretical framework is a generic model that purports to understand readiness to change a number of behaviours. The framework has two interrelated models: The context of change model (CCM) that examines the contextual factors that influence readiness to change such as, the individual’s internal context and the general social and cultural context. The second model is the barriers to change model (BCM) which acknowledges 10 barriers that could be obstacles to change such as, perceived importance of change compared to conflicting goals and perceived need to change. The RCF states that readiness is non-linear and dynamic, influenced by internal and external factors behaviour change and involves the lowering of barriers to change.
The literature on readiness for treatment highlights how it may be erroneous to assume that motivation for treatment is a simple construct that can be assessed in isolation and compared directly to treatment engagement and outcome. It is important to view motivation in context of other factors that could impact on treatment engagement. It is also important that instruments are developed to assess all aspects of readiness for treatment. Accurate assessment of readiness is needed for treatment selection, to fulfil accreditation criteria for programmes and to help match participants for quasi-experimental programme evaluations (Burrowes & Needs, 2009).

1.12 Measures of treatment readiness

One recent measure that assesses ‘readiness for treatment’ (as opposed to measures of motivation discussed earlier in the chapter) is the Corrections Victoria Treatment Readiness Questionnaire (CVTRQ; Casey, et al. 2007) which is a measure of the internal characteristics of treatment readiness derived from the MORM. The CVTRQ shows potential to predict offender engagement in a treatment programme (Casey et al., 2007). Casey et al. state the 20 item CVTRQ may be particularly useful in assessing suitability for cognitive skills programmes, which are offered to large numbers of offenders. The tool showed preliminary success at identifying the offenders most likely to engage and respond to treatment and pinpointing those who are unlikely to engage (who can then be referred for additional intervention). Readiness training activities at the beginning of therapy may help clients become more involved in treatment (Sia et al., 2000).

The five internal domains of the MORM are: cognitive, affective, and volitional (goals, wants and desires), behavioural and issues pertaining to personal identity. The items in the CVTRQ aimed to reflect these areas. Casey et al. (2007) found in their study with the
CVTRQ that four factors emerged that corresponded closely with four of the five internal factors identified in the MORM. However, the items included to measure the ‘volitional’ factor did not feature in the final CVTRQ (although the final version contained an attitudes and motivation component). Volition’, according to Ward et al. (2004) refers to the “formation of an intention to pursue a certain goal and the development and subsequent implementation of a plan to achieve the goal in question” (p.657). Therefore, a simple self-report questionnaire may be inadequate to measure the construct of volition (Casey et al. 2007).

The MORM states that readiness is likely to be a dynamic, rather than static phenomenon, and Casey et al. (2007) postulate that the degree to which treatment engagement is sustained is dependent on intention which can be affected by internal and external factors at any stage, either weakening or strengthening it. Therefore they hypothesise that ‘volition’ is not just an aspect of motivation that helps to formulate intent; but rather, it is also the mechanism whereby the motivation for change is maintained. Put simply, “volition serves as a mediating function between programme engagement and program performance” (Casey et al., 2007, p.1437).

Ward et al. (2004) note that volitional factors of the MORM are often operationalised in terms of motivation to change. They say motivation to enter treatment involves the will to seek a number of goals, one of which is to behave pro-socially. As well as volition being the formation of an intention to pursue a certain goal and the implementation of a plan to achieve that goal, aspects of volition also include the belief that one is capable of exercising choice and can directly control important personal outcomes. Therefore, the assessment of offender volition is important. It could prove informative to assess the goals that an offender decides to pursue, how they plan to achieve such goals, their perceived capabilities of achieving their goals and how such volition mediates the process between treatment engagement and
programme performance. Such an assessment of offender motivation would compliment other measures of treatment readiness to give a more accurate indication of the likelihood that a particular offender would engage in treatment.

Recently, a self-report measure of treatment readiness for violent offenders has been developed. Day et al. (2009) developed and validated a brief self-report measure of treatment readiness in offenders who are to attend violent offender treatment programmes. The scale, named the Violence Treatment Readiness Questionnaire (VTRQ) is an offence specific version of the CVTRQ. Pre-treatment scores were significantly correlated with treatment engagement. Their study further supported the suggestion that treatment readiness can be operationalised and the view that readiness is broader than other constructs that may be related to treatment engagement such as motivation to change as well as risk, needs and responsivity issues (Day et al., 2009). The (VTRQ) and the CVTRQ were derived from a theoretical model of offender readiness (MORM) and this is a conceptual advance on other models that rely on the transtheoretical model of change (Day et al., 2009).

Casey et al. (2007), state other measures that purport to assess readiness in offenders such as the Attitudes to Correctional Treatment Scale (Baxter, Marion & Goguen, 1995), the Serin Treatment Readiness Interview (Serin & Kennedy, 1997) and the PCI-OA (Sellen, McMurran, Cox, Theodosi & Klinger, 2006) were not derived from a model of offender readiness, and their predictive validity has yet to be established.

As noted, looking at motivation in terms of its place within a broader spectrum of ‘readiness’ may prove to be more informative than examining the construct alone. However, with regard to the studies described in this thesis, motivation for treatment is examined in isolation and the results discussed in light of its place within the realms of a broader construct
of readiness. While examining the whole construct on readiness may lead to a greater understanding of treatment engagement and treatment success, it is also important to glean a greater understanding of each facet of readiness. Therefore, further investigations of offender treatment motivation are warranted.

1.13 The use of the term motivation in this thesis

Klinger & Cox (2004a) describe motivation as “the internal states of the organism that lead to the instigation, persistence, energy, and direction of behaviour towards a goal” (Klinger & Cox; pp. 4-5). They also state volitional processes are a subset of motivation. Volition, according to Ward et al. (2004), refers to the “formation of an intention to pursue a certain goal and the development and subsequent implementation of a plan to achieve the goal in question” (p.657). Aspects of volition also include the belief that one is capable of exercising choice and can directly control important personal outcomes (Ward et al., 2004).

This thesis will examine offender treatment motivation. Treatment motivation is defined as the offender's motivation to engage in their treatment. The goal in this instance is engagement in a prison-based cognitive treatment programme. Motivation is viewed as distinct from the internal variables that are thought to cause it (i.e. outcome expectancies, problem recognition etc) and the resulting behaviour that motivation brings about (i.e. treatment engagement) (Drieschner et al., 2004). Motivation is acknowledged as variable and dependent on external events and internal experiences (Barrett et al., 2003; Howells & Day, 2003). Motivation for treatment is thought to be influenced by external or general offender factors (for example, circumstances, demographic factors) and is mediated by the internal determinants (Drieschner et al., 2004). Deci & Ryan (2000) note that intrinsic motivation is associated with better treatment outcomes and long-term change. Therefore, this thesis will
focus on the measurement and enhancement of intrinsic motivation. Motivation in this thesis is viewed as a component of treatment readiness, and treatment readiness is viewed as a subset of the responsivity concept talked of in the RNR model (Howells & Day, 2003).

1.14 Offender treatment and motivation – summary

To summarise, offender treatment reduces recidivism when offenders successfully engage and complete the treatment programme. Treatment motivation is important as a lack of motivation may increase the risk of offenders dropping out of treatment which can cause an increase in the risk of re-offending. Despite problems disentangling the constructs of motivation for treatment from other similar constructs, there exists a need to develop assessments and measures of offender motivation for treatment to guide selection and target pre-treatment intervention. Higher levels of motivation for engagement should be viewed as a strength whereas lower levels can be strategically targeted in order to strengthen offender motivation and readiness (Garner, Knight, Flynn, Morey & Simpson, 2007). There is also a need to develop ways of enhancing offender motivation for and during treatment to discourage drop-outs and allow treatment to elicit behaviour change. The development of robust (reliable and valid) measures of offender motivation could prove useful to offender management services.

It is also clear that motivation is most helpful when viewed within the broader construct of ‘readiness’ for treatment and change. It is important to acknowledge the issues that affect motivation for treatment and how other internal and external factors interact with motivation to impact on treatment readiness, engagement and subsequent behaviour change. However, it is necessary to further understand offender motivation itself before we can fully understand its place in the wider construct of readiness. Offender motivation needs to be
explored and understood through a framework with a strong theoretical base that can give an additional perspective on what we already know of this construct.

1.15 Goals and offender motivation

One potentially useful way of understanding and assessing offender motivation is through a goal-striving framework. Emmons (1996) describes goals as desired states that people seek to obtain, maintain or avoid. Humans by nature are active, goal-seeking beings concerned with constructing a sense of purpose and meaning in their lives (McMurran & Ward, 2004). Goal perspectives have been used in therapy in general (Karoly, 1993, 1999; Michalak & Grosse Holtforth, 2006), and assessing offending behaviour through a goal based framework may be valuable for a number of reasons. A goal perspective may be a useful way of understanding offender motivation to engage in treatment and change behaviour (McMurran & Ward, 2004). By using goals as part of assessment means utilising personally meaningful and relevant material (Karoly, 1993). Goals are effective targets for change as they have direct applicability to a person’s life (Emmons, 1999). Focusing on important life goals may encourage offenders to engage more with a treatment programme or intervention.

Goal-directed behaviour is influenced by factors such as transient events, physiological states, intellect and temperament as well as cultural and social influence (Karoly, 1993). Therefore, such an approach allows for individual differences and may help tailor treatment to individual needs. Goal based theories are also congruent with the GLM (Ward & Brown, 2004; Ward & Stewart, 2003) with regard to their focus on obtaining primary human goods via personally meaningful goals. Therefore, a goal perspective may also be useful to offender rehabilitation due to its ability to operationalise the GLM for practical application and empirical investigation (McMurran & Ward, 2004). Additionally, offender goals may
demonstrate how the GLM and RNR model (Andrews & Bonta, 2003) contribute to a holistic approach to offender well-being (McMurran, Theodosi, Sweeny & Sellen, 2008).

There is often a logic or purpose regarding why offenders do what they do. Offending can reflect striving for the attainment of specific goals and goods and what they are striving for can express who they are or who they want to become (Ward & Marshall, 2007). Commenting on the results of the ‘Pathfinder’ evaluations, Maguire & Raynor (2006) note the success of projects that emphasised ‘agency’ within the context of an offender’s life. They note that obstacles could be overcome more easily if offenders were motivated and possessed clear goals and plans to achieve such goals. The formation and presence of personal goals may be a necessity of well-being and happiness; however, their presence alone is not sufficient to achieve the above states (Michalak & Grosse Holtforth, 2006). For this, the goals need to be concurrent with the person’s needs and wider context of their life (Michalak & Grosse Holtforth, 2006). Goals should originate from within the offender and be authentic for each individual, rather than imposing an external goal intervention on them (Ward et al., 2006).

There are features of an offender’s goal structure that may impact on their motivation. Ward et al. (2006) argue that both avoidance and approach goals are critical and excluding either could prove detrimental to an individual. This is because an individual needs to possess the strategies and skills to turn abstract goals into specific outcomes while at the same time detecting and combating threats to their plan (e.g. problematic internal states, lack of external resources or obstacles). Locke (1996) asserts that goals that are set too high can be demoralising and discouraging, and emphasises the importance of maintaining self-efficacy when faced with obstacles and setbacks. Expectancy and perceived self-efficacy mediate the goal process; self-efficacy beliefs partly contributes to what goals people undertake, how much effort to put in and how long they persevere in the face of difficulties (Gauggel & Hoop,
2004). Such unfavourable goal characteristics may lead to the development of clinical symptoms and decreased treatment motivation (Michalak & Grosse Holtforth, 2006).

Looking at offender motivation through a goal-based framework may provide insight into an offender’s motivation for treatment and change and is congruent with recent positive theories of offender rehabilitation such as the GLM. A goal-based framework also suggests the necessary characteristics for a ‘healthy’ goal structure and provides explanations for why an individual may lose motivation for treatment and change. Therefore, working with a goal-based theory of motivation may be useful with offenders. There are a number of specific goal-based perspectives and this thesis will now focus on one particular theory that has shown to be robust in the substance abuse arena and has shown recent potential with offenders, that is: The Theory of Current Concerns (Klinger & Cox 2004a).

1.16 The Theory of Current Concerns

The Theory of Current Concerns (TCC) is a teleological theory that was derived from the motivational model of Cox & Klinger, and is applied readily in the addictions field. This cognitive-motivational framework provides a model of motivation structure that may prove extremely useful with an offending population.

Klinger & Cox (2004a) note that the construct of a current concern refers to a latent process representing the state of an individual between the points where one becomes committed to the pursuit of a particular goal and the time where the goal is either attained or relinquished. This hypothetical time-binding process is thought to span the duration of the pursuit and ‘bind together’ the psychological processes occurring over that period (Klinger & Cox 2004a). A goal pursuit is therefore seen as a current concern. Within the TCC, goal choice depends on the value assigned to each alternative (incentive) and its perceived
attainability (Klinger & Cox, 2004a). Goals are a limited selection of incentives (goals an individual thinks they can successfully pursue to bring about affective change). Affective change is a key motivational concept because it is the ultimate essence of what people are motivated to achieve (Klinger & Cox, 2004a).

1.17 The application of theories from the addictions field to offenders

A number of theoretical commonalities exist between substance abusing behaviour and offending behaviour. Sellen et al. (2006) note that maintenance of both behaviours can come about due to short-term benefits being prioritised over long-term costs. Additionally, substance abuse problems are a major issue in the area of criminal justice (Sia et al., 2000), therefore theories from the addictions field may at least assist in understanding some of the problems that lead to, or propagate, offending behaviour.

The motivational model of Cox & Klinger (1988, 1990, & 2004) posits a model of alcohol use based on incentive motivation and decision-making. McMurran (2004) states that despite this model being initially focused on drinking, the underlying principles should be applicable to any behaviour. The model posits that each person has a learning history based on constitutional, sociocultural and experiential factors, and this history is summarised in a person’s incentive motivations, beliefs and expected effects of their own behaviour. Then, present day situational factors, cognitions and the availability of reward alternatives combine to predict likelihood of the behaviour (McMurran, 2004). McMurran (2004) adapted Cox & Klinger’s motivational model to make it applicable to offenders. It is shown below in Figure 5.
The broad categories of offending are violent, sexual and acquisitive offences (McMurran, 2004); and offending can bring about affective rewards (increase in positive affective states, e.g., excitement, pleasure; and reduction in negative affect, e.g., boredom, deprivation), material rewards (e.g. acquisition of goods, prevention of loss of goods) and social rewards (e.g. enhancement of status, preventing isolation through inclusion in group; McMurran, 2004). Reward value develops over time and is dependent on past experiences from gains from offending and failure to acquire gains from alternative non-offending behaviours. Offending then acquires the status of an ‘incentive’ (McMurran, 2004). In recent years, an assessment tool based on the TCC has been developed and empirically tested with offenders. That is the Personal Concerns Inventory- Offender Adaptation (PCI-OA; Sellen et al., 2006).
The Personal Concerns Inventory (PCI) is a questionnaire developed by Cox & Klinger (2004b) and is based on the TCC. The PCI was originally developed to assess motivation to change in people with addictive behaviours. The PCI is an abridged version of the Motivational Structure Questionnaire (MSQ; Cox & Klinger 2004b, Klinger et al., 1995) and requires respondents to identify concerns in 11 life areas. Goals to resolve or achieve concerns are then rated on scales such as importance, likelihood of obtaining goal, and commitment to goal attainment. The PCI also requires that the problem behaviour (e.g. substance abuse) be rated for the degree to which the respondent thinks it helps or hinders goal achievement. The life areas of the PCI are shown in Table 2.

Table 2. Personal Concerns Inventory (PCI) Life Areas – Cox & Klinger (2004)

<table>
<thead>
<tr>
<th>Life Area</th>
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<tbody>
<tr>
<td>1. Home and Household Matters</td>
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<td>2. Employment and Finance</td>
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<tr>
<td>3. Partner, Family, and Relatives</td>
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<td>4. Friends and Acquaintances</td>
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<tr>
<td>5. Love, Intimacy, and Sexual Matters</td>
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<tr>
<td>6. Self Changes</td>
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<td>7. Education and Training</td>
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<tr>
<td>8. Health and Medical Matters</td>
</tr>
<tr>
<td>9. Substance Use</td>
</tr>
<tr>
<td>10. Spiritual Matters</td>
</tr>
<tr>
<td>11. Hobbies, Pastimes, and Recreation</td>
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</table>

The PCI has consistently revealed two motivation profiles (adaptive and maladaptive), across a range of populations including substance abusers, persons with brain injury and
patients with anxiety disorder (Klinger & Cox, 2004b). The adaptive motivation profile has shown to be the most consistent and is characterised by high perceived likelihood of goal attainment, expected happiness at goal attainment, and commitment to goal pursuit and achievement. The maladaptive motivation profile is marked by ratings of goals being unimportant, bringing little happiness, and a lack of commitment toward goals. Cox et al. (2002) noted the importance of adaptive motivation when solving problematic drinking in students. Additionally, adaptive motivation has been found to be positively related to determination to change (measured by the URICA) in substance abusers in treatment (Cox, Blount, Bair & Hosier, 2000). Despite the dynamic nature of motivation, Klinger & Cox (2004b) report acceptable construct validity and reliability of both the MSQ and PCI scales and factors.

1.19 Systematic Motivational Counselling

The PCI also provides the basis for a technique called Systematic Motivational Counselling (SMC; Cox, Klinger & Blount, 1991). This technique uses the goals identified in the PCI as a framework for therapy. With SMC, maladaptive profiles are identified and targeted for change (Cox & Klinger, 2004c). This technique when conducted on an individual and group basis has shown favourable results with a number of populations including substance abusers, and persons with psychosis and personality disorders (Cox et al., 2003; Cox & Klinger, 2004c). Schroer et al. (2001, cited in Schroer, Fuhrmann, & Jong-Meyer, 2004) adapted and extended techniques of SMC for a group setting (SMC-G) due to the benefits of being able to administer a motivational intervention that could be delivered to a group of patients within a brief treatment. Schroer et al. (2001) assessed the effectiveness of SMC-G with inpatients on an alcohol withdrawal treatment programme. They found that the SMC-G
was just as effective as social skills training, which is thought of as one of the most effective treatment options (Miller & Wilbourne, 2002).

1.20 The Personal Concerns Inventory – Offender Adaptation

If the theories developed in the addictions field apply to the offending field, then there is potential that the assessment measures will too (McMurran et al., in press). The PCI was adapted for use with offenders in 2006 by Sellen et al., and it has so far shown considerable potential in measuring aspects of offenders’ motivation structure, and thus it warrants further attention and exploration.

Sellen et al. (2006) cited five primary reasons why the PCI was thought of as a potentially informative tool with the offending population. Firstly, there is thought to be a degree of likeness between the theoretical underpinnings of the PCI (the TCC) and its applicability to offending behaviour - as previously mentioned, both substance abuse and offending behaviours “are maintained by short-term gain over long-term costs, and that these long-term costs are failure to maximise one’s potential in life” (Sellen et al. 2006; p.7). Secondly, the PCI (and more so its predecessor the MSQ) has previously been subject to vigorous testing and demonstrated adequate psychometric properties (in the form of internal reliability and construct validity; Klinger & Cox, 2004b) thus providing a sound basis in which to work from. Next, the PCI provides the foundation for SMC which could be of considerable use to offender management services either as a pre-treatment motivation enhancer or a motivation enhancer during treatment. The penultimate reason Sellen et al. gave is the apparent overlap between the life areas contained within the PCI and the primary human goods identified by the GLM. The life areas of the PCI are displayed in Table 2 above, and the primary goods mentioned by the GLM are shown in Table 1 earlier in the chapter.
Finally, due to the ability of the PCI to collect rich idiographic data (as well as nomothetic data) in a variety of different life areas, it was hypothesised that such information could be used to tailor rehabilitation to individual offender needs. The idiographic aspect involves the generation of concerns and goals and the nomothetic assessment requires the numerical ratings on standard rating scales. The nomothetic data collected could be useful in that it can contribute to a normative database to which individual offenders’ scores could be compared (Sellen et al., 2006).

The PCI, and resulting life areas, may also be applicable to offenders as they are similar to the nine factors thought to have a large impact on re-offending identified by O’Neill (2002): education, employment, drug and alcohol misuse, mental and physical health, attitudes and self-control, institutionalisation and life-skills, housing, financial support and debt, and family networks. The life areas of the PCI also cover some of the areas typically thought of as ‘criminogenic needs’ such as substance abuse and family dysfunction and present an opportunity for offenders to discuss their own needs. Therefore, there is potential applicability and utility of the PCI with an offending population. However, Sellen et al. (2006) needed to make a number of changes to make the PCI applicable to offenders.

To adapt the PCI for use with offenders Sellen et al. (2006), first added two life areas deemed to be pertinent to offenders: “my offending behaviour” (where offenders can identify any concerns regarding their offending) and “current living arrangements” (where offenders can identify any concerns regarding detention). Next Sellen et al. changed the last two rating scales to refer to offending rather than substance abuse. So offenders rated whether prison and offending helped or interfered with goal achievement. Finally, they conducted the PCI as a semi-structured interview as opposed to a self-report schedule. The aim was to avoid any difficulties the offender may have with literacy and develop rapport with the respondents. The
resulting instrument was named the Personal Concerns Inventory- Offender Adaptation (PCI-OA; Sellen et al., 2006). The PCI-OA asks offenders to name concerns in 13 areas which are shown below in Table 3.

<table>
<thead>
<tr>
<th>Table 3. Personal Concerns Inventory: Offender Adaptation (PCI-OA) Life Areas, Sellen et al., 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Area</td>
</tr>
<tr>
<td>1. Home and Household Matters</td>
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<tr>
<td>2. Employment and Finance</td>
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<tr>
<td>3. Partner, Family, and Relatives</td>
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<td>4. Friends and Acquaintances</td>
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<td>5. Love, Intimacy, and Sexual Matters</td>
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<tr>
<td>6. Self Changes</td>
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<tr>
<td>7. Education and Training</td>
</tr>
<tr>
<td>8. Health and Medical Matters</td>
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<tr>
<td>9. Substance Use</td>
</tr>
<tr>
<td>10. Spiritual Matters</td>
</tr>
<tr>
<td>11. Hobbies, Pastimes, and Recreation</td>
</tr>
<tr>
<td>12. My Offending Behaviour</td>
</tr>
<tr>
<td>13. Current Living Arrangements</td>
</tr>
</tbody>
</table>

Once concerns and goals are noted, participants are then asked to rate them on a number of rating scales shown overleaf in Table 4. Each scale ranges from 0 (none at all) to 10 (the most that I can imagine).
Table 4. Personal Concerns Inventory: Offender Adaptation (PCI-OA) Rating Scales, Sellen et al., 2006

<table>
<thead>
<tr>
<th>Rating Scales</th>
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<tbody>
<tr>
<td>1. Importance</td>
<td>How important is it to me for things to turn out the way I want?</td>
</tr>
<tr>
<td>2. Likelihood</td>
<td>How likely is it that things will turn out the way I want?</td>
</tr>
<tr>
<td>3. Control</td>
<td>How much control do I have in causing things to turn out the way I want?</td>
</tr>
<tr>
<td>4. Achievability</td>
<td>Do I know what steps to take to make things turn out the way I want?</td>
</tr>
<tr>
<td>5. Happiness</td>
<td>How much happiness would I get if things turn out the way I want?</td>
</tr>
<tr>
<td>6. Unhappiness</td>
<td>How unhappy would I feel if things turn out the way I want?</td>
</tr>
<tr>
<td>7. Commitment</td>
<td>How committed do I feel to make things turn out the way I want?</td>
</tr>
<tr>
<td>8. When will it happen?</td>
<td>How long will it take for things to turn out the way I want?</td>
</tr>
<tr>
<td>9. Will offending help?</td>
<td>Will my offending behavior help things to turn out the way I want?</td>
</tr>
<tr>
<td>10. Will offending interfere?</td>
<td>Will my offending behavior interfere with things turning out the way I want?</td>
</tr>
<tr>
<td>11. Will prison help?</td>
<td>Will the experience of being in prison help things to turn out the way I want?</td>
</tr>
<tr>
<td>12. Will prison interfere?</td>
<td>Will the experience of being in prison interfere with things turning out the way I want?</td>
</tr>
</tbody>
</table>

The PCI-OA could be useful with offenders for a number of reasons. Firstly, it may hold potential as a motivational assessment (either before treatment to indicate who is most ready for treatment or to measure progress in treatment). Secondly, the PCI-OA may be a useful motivation enhancer. The attention to important life goals and the consideration of how both incarceration and offending behaviour impacts on important life goals may prove motivating in getting offenders to engage in a treatment programme in order to change their behaviour and achieve personal goals.

In an attempt to validate the PCI-OA as an assessment of offenders’ motivation Sellen et al. hypothesised the PCI-OA would identify adaptive and maladaptive motivational profiles.
in offenders, in a similar way in which it does with substance abusers (i.e. those with a more adaptive structure being more determined to change and display more encouraging treatment outcomes). Sellen et al. (2006) conducted a preliminary pilot study on 12 offenders at a South Wales prison (UK). The examination of respondents’ motivation profiles was conducted by averaging scores for each rating scales across all life areas. The indices that reliably loaded onto an adaptive motivation profile (likelihood, happiness and commitment) and negatively load onto a maladaptive profile (happiness, commitment and importance) were used to study motivational structure in this sample. Results revealed the factors identified in previous studies with the PCI appeared consistent with an offending population. That is, adaptive and maladaptive motivational profiles were apparent in the sample. Further work was required to assess the relationship between motivational profile and treatment outcome, however. It would be hypothesised that if findings from previous studies can be extrapolated to this population it should be possible to identify through the PCI-OA who is most likely to experience positive benefits from treatment programmes; as well as being able to identify where individuals require the most support (Sellen at al., 2006). The authors reported that some offenders felt the experience of completing the PCI-OA was a positive one and beneficial to them. Although no treatment or therapy was delivered, some said it gave them an opportunity to breakdown large insurmountable goals into smaller more manageable issues. The PCI-OA also has the ability to investigate how offending impacts (helps or hinders) on goal attainment, with this being fundamental to motivating offenders to change their offending behaviour (Sellen et al., 2006). However, whether the PCI-OA had more potential as a measure or enhancer of offender motivation was unclear.

Sellen, McMurran, Theodosi, Cox and Klinger (2009) conducted a study on a larger sample (129 adult males in a South Wales prison) in order to test the psychometrics of the
PCI-OA. Structural validity was investigated by assessing if the adaptive and maladaptive motivational profiles witnessed in previous studies could be elicited in this larger sample of offenders. Their sample of offenders consisted of some offenders who were attending a treatment programme and some offenders who were not in order to validate the PCI-OA on a sample of offenders who were likely to be both motivated and not motivated for treatment.

Exploratory factor analysis conducted on the PCI-OA found the ‘when will it happen’ rating scale problematic. When asked, many offenders would reply “when I get out”. Thus there were inconsistencies and variability both in participant answers and the way researchers were recording answers. As a result, this scale was dropped from analysis. Additionally, both the prison and offending interfering rating scales failed to meet the sampling adequacy for factor analysis and were omitted from analysis. Nine rating scales were included in total and it was found that the PCI-OA yielded a 3 factor structure. Factor one named adaptive motivation consisted of all 9 scales all of which were positive bar the negative loadings on the unhappiness scale. Due to its similarity to the factor seen with the PCI this was named Adaptive Motivation (PCI-OA). Factor two was named Maladaptive Motivation (PCI-OA) (due to its similarity to the PCI maladaptive motivation) and consisted of positive loading on likelihood, control and unhappiness, with negative loadings on importance and happiness. Factor 3 had positive loading on unhappiness, prison helps and offending helps, and a negative loading on the knowledge (achievability) rating scale. Sellen et al. (2009) interpret this as an element of unhappiness at goal attainment and a lack of knowledge on what to do to achieve their goals therefore prison and reoffending are seen as helping goal achievement. They named this factor Lack of Direction (PCI-OA).

Due to the similarities in the factor structure between the PCI and PCI-OA it was taken that the psychometrics of the instruments were the similar and structural validity assumed.
This supports the assumptions that the motivation structure of offenders is similar to other populations and supports the applicability of the theoretically based work of Cox & Klinger (McMurran et al., in press) with offenders. Sellen et al. (2009) found that that the adaptive and maladaptive motivation profiles did not correlate directly to recidivism rates. However, it was hypothesised that while the PCI-OA may not be a direct measure of change, it may hold potential as a valid tool to measure motivation to engage in a treatment programme.

Additionally, Sellen et al., (2009) noted that the PCI-OA had potential as a brief motivational intervention for some offenders due to its motivational qualities (many offenders said it helped them to identify and clarify life goals).

More support for the potential of the PCI-OA to act as a motivation enhancer comes from a small pilot study with sex offenders. Theodosi & McMurran (2006) adapted the PCI-OA to work with sex offenders who were refusing treatment (PCI-OA [TR]) in order to motivate participation in treatment programmes. Motivation for behaviour change is seen as pivotal in the treatment of sex offenders (Tierney & McCabe, 2002). To examine the effectiveness of the newly adapted tool, Theodosi & McMurran compared 9 offenders refusing sex offender treatment who completed the PCI-OA (TR) to 9 “refusers” who received no intervention. They found that compared to the untreated group, the treatment group were found to be at least 0.6 times more likely to display a positive motivational shift toward sex offender treatment programmes. This was assessed by whether offenders sought information regarding the treatment programme. It is thought that by allowing the offender to identify goals, and acknowledging how their behaviour (conviction or refusal of treatment) helps or hinders these objectives, allows the individual to consider the idea of treatment as a positive means of achieving such goals. They note despite the advantages of individual motivational
sessions, for issues of practicality, the development and implementation of a group-based version of the PCI-OA may be beneficial.

Investigations of the nature of offenders’ goal with the PCI-OA have so far demonstrated that most goals expressed by offenders are positive and pro-social in nature. McMurrnan et al. (2008) analysed the qualitative nature of offenders’ goals stated during the PCI-OA interview and found that goals such as stopping offending and ceasing drinking and drugs were expressed as well as life enhancing goals such as gaining employment, improving relationships and pursuing new leisure interests. This is in line with the recent positive approach to offender rehabilitation that focuses on offenders’ strengths (McMurrnan et al., 2008).

Despite the potential of the PCI-OA, caution is warranted. The adaptive and maladaptive motivation factors of the PCI-OA showed acceptable, but lower, internal consistency than those in the PCI (and the Lack Of Direction factor showed unacceptably low internal consistency), therefore the factor structure of the PCI-OA may not be as robust as that of the PCI (Sellen et al., 2009). Sellen et al. suggest that the PCI (which does not contain rating scales pertaining to prison and offending) is the most psychometrically robust; however, they acknowledged that getting offenders to think about their incarceration and future re-offending behaviour, and how it impacts on their important life goals, could have positive motivational impact. Therefore, the PCI-OA could be useful, just in an alternative format (Sellen et al. 2009). In terms of measuring offender motivation, the PCI is recommended (due to its more robust factor structure). However, for a full assessment of offenders’ motivation, including issues pertinent to offenders may be paramount – therefore the PCI-OA may be better suited.
Sellen et al. (2009) state that the PCI-OA could benefit from a number of amendments to maximise its potential with offenders. The authors suggested a number of changes should be made to any adaptation of the PCI-OA. These included: (1) Working on the ‘when’ scale and taking into consideration that the prison situation means many offenders do not know when they will be released; (2) Amendment of the prison and offending rating scales to aid clarity and eradicate misunderstanding and inconsistencies in the data. This may lead to an improvement of the psychometrics of the PCI-OA when the prison and offending scales are included in analysis; and (3) Abridgement of the PCI-OA is recommended in order to make it a more time-efficient procedure for practical use. At present the PCI-OA interview takes approximately 2 hours which may be too long for practical use in a clinical or prison setting. Additionally, offenders may feel they need to express goals in each of the thirteen life areas which may elicit concerns that are of minor significance (McMurran et al., in press). Drieschner & Boomsma (2008) note the PCI-OA yields clinically useful information; however, they state it involves a time-consuming interview that limits its practical utility. Therefore, the challenge exists to refine the PCI-OA in order to develop a reliable and valid measure of offender motivation that contains items relating to offending and its consequences.

1.21 Future directions

It is clear that the TCC and PCI-OA show potential with offenders in terms of assessing, measuring and enhancing motivation for treatment. There is, nevertheless, an obvious paradox whereby if by the very nature of doing the PCI-OA leads to changes in the construct under measurement (motivation), then the measurement itself will be compromised and will lack accuracy. This issue requires further study and attention.
As noted earlier in the chapter, motivation for treatment may not be directly linked to recidivism in line with the treatment interaction hypothesis (DeLeon et al., 2000), but it is thought motivation for treatment influences treatment and treatment in turn influences outcome. It was also argued that motivation needs to be sustained in order for offenders to complete treatment programmes (Barrett et al., 2003), and a lack of motivation is one of the variables that accounts for treatment drop-outs (McMurran & McCulloch, 2007; Pelisser, 2007). It is important that offenders do not drop out of treatment as this leads to an increased risk of re-offending (e.g. Cann et al., 2003; Hanson & Bussiere, 1998; McMurran & Theodosi, 2007; Hanson & Harris, 2000). Consequently, a method such as the PCI-OA is a potential way of identifying which offenders are most motivated to take part in treatment and which require more help, thus preventing treatment drop-outs through poor selection of offenders. It may also be able to boost motivation throughout the treatment programme, again preventing drop-outs and its damaging consequences. Thus, using the dynamic variable of motivation to improve the effectiveness of treatment programmes designed to reduce the risk of re-offending could be a valuable endeavour.

1.22 Further uses of the PCI-OA in practice

Howells & Day (2003) noted that an impediment to effective treatment is inadequate attention to the context of personal goals. For some offenders, offending behaviour may aid personal goal achievement (for example violence could increase social status or anger could remove obstacles in the way of goal achievement). Therefore, if the goals of treatment are not congruent with the offender’s personal goals then this may be an impediment to readiness to change. Due to the goal directed nature of humans, it is important to assess what goals are personally important to the offender and how this fits in with their readiness to change, their goals may be incompatible with those of rehabilitation (Burrowes & Needs, 2009), and goal
conflict is an impediment to motivation (Klinger & Cox, 2004d). Therefore, the exploration of an offender’s goal structure with the PCI-OA would be a worthwhile endeavour to ensure the goals of treatment are congruent with the offender’s goals.

Earlier in the chapter, Casey et al.’s (2007) measure of readiness to change (the CVTRQ) was discussed. The CVTRQ measures the internal characteristics of treatment readiness derived from the Multifactor Offender Readiness Model (MORM; Ward et al., 2004). It was reported that Casey et al. (2007) found in their study with the CVTRQ that four factors emerged that corresponded closely with four of the five internal factors identified in the MORM (cognitive, affective, behavioural and identity properties). It was suggested that a simple self-report questionnaire may be inadequate to measure the full construct of volition (Casey et al., 2007). Thus, in order to fully understand readiness to engage in treatment and change, additional assessment of goals and volition may need to be employed alongside the CVTRQ. The PCI-OA may have potential to do this and be an alternative assessment to a simple self-report questionnaire in order to glean a deeper understanding of offender goals and motivation and how this fits in with a wider construct of readiness.

Ward et al. (2007) suggest as well as the principles of RNR, the idea of ‘priorities’ also needs to be explored. By this they believe the client’s life goals, priorities and aims warrant attention and assessment. The authors note that at present there is no psychometric tool that can perform this task and the authors recommend a clinical open ended interview. They found presenting a list of priorities for selection to offenders was ineffective in gauging important goals. They also suggest looking at what goals are evident in their offence related actions. Hence, the PCI-OA could help gauge offenders’ goals and priorities.
1.23 Future research

Limitations of the PCI-OA first need to be addressed in additional research and then the changes piloted and psychometrics assessed before other investigations (such as its use as a measure or enhancer of offender motivation) can take place. The PCI-OA has been shown to have potential to motivate sex offenders to seek information on treatment. However, investigations are required into whether the PCI-OA, or future refinements, can motivate offenders to engage more in the treatment process and if this additional engagement can lead to increased treatment effectiveness and a reduced risk of re- offending. Additionally, future work needs to assess whether the PCI-OA can predict which offenders are more likely to engage in treatment and which require extra support before treatment.

It is important to also assess what having adaptive motivation or maladaptive motivation means for offenders. For example, studies are needed to assess how treatment engagement and outcome differ between those with varying profiles. It is important to assess if, like in other populations, those with more adaptive motivation are more ready for treatment and have better treatment outcomes. Additionally, it needs to be clear how motivation profiles may interact and bring about good or bad treatment engagement and outcome. Importantly, we need to establish how to assist those whose motivation profile suggests that they are not ready to engage and reap the rewards of a treatment programme. In 2004, McMurrnan and Ward asserted that to aid understanding of offender motivation as part of the wider construct of ‘treatability’, we need to fully understand what we mean by ‘offender motivation’, we need an examination of exactly what affects it, develop systematic means of measuring it and employ evidence based methods of enhancing it. Thus, it appears that the PCI-OA, and the TCC, may be a potentially viable way of exploring these issues.
1.24 Conclusion

This literature review stated a case for the importance of offender motivation when considering offender treatment engagement. This chapter has argued that examining offender treatment motivation through a goal-based framework is a useful way of understanding the construct. The Personal Concerns Inventory-Offender Adaptation (PCI-OA) was presented and evidence suggests that it is a potentially valid way of exploring offender motivation for treatment. This thesis will report on a number of studies detailing developments from the PCI-OA. This includes studies addressing its limitations, pilot work following refinements, the testing of psychometric properties and investigations into the PCI-OA’s potential as a measure or enhancer of offender treatment motivation.
Chapter 2 - The construction of the Personal Aspirations and Concerns Inventory - for Offenders and the pilot study

Summary

Motivation is important for the successful completion of treatment programmes (Barrett, Wilson & Long, 2003). However, there is no universally agreed method of measuring or enhancing offender motivation for treatment. One instrument currently used to explore motivation in forensic populations is the ‘Personal Concerns Inventory-Offender Adaptation’ (PCI-OA; Sellen, McMurran, Cox, Theodosi & Klinger, 2006). As well as demonstrating considerable promise in measuring an offender’s motivation level, the PCI-OA has showed potential as a motivation enhancer in itself (Sellen, McMurran, Theodosi, Cox & Klinger, 2009). Despite the PCI-OA’s preliminary degree of success, a number of amendments were recommended in order to maximise its potential. The current research involved the abridgement and further development of the PCI-OA. This has resulted in the instrument evolving into what is now named the ‘Personal Aspirations and Concerns Inventory- for Offenders’ (PACI-O). The amendments made to the PCI-OA are described and the results of a pilot study with 22 offenders detailed. The research aimed to assess the suitability of the PACI-O with an offending population. Recommendations for future research include plans for a large scale study to assess the psychometric properties of the PACI-O and studies to evaluate its potential as either a measure or enhancer of offender motivation.
2.1 Introduction

2.1.1 Offender motivation for treatment

There exists a need to develop reliable and valid assessments and measures of offender motivation for treatment to guide selection and target pre-treatment intervention. There is also a need to develop motivation enhancers in order to boost low motivated but high-risk offenders to attend treatment and maintain their motivation throughout the programme.

The Personal Concerns Inventory (PCI) is a questionnaire developed by Cox & Klinger (2004b) and was originally intended to assess motivation to change in people with addictive behaviours. The PCI has consistently revealed two motivation profiles (adaptive and maladaptive), across a range of populations including substance abusers, and persons with brain injury and anxiety disorder (Klinger & Cox, 2004b). The adaptive motivation profile has shown to be the most consistent and is characterised by high perceived likelihood of goal attainment, expected happiness at goal attainment, and commitment to goal pursuit and achievement. The maladaptive motivation profile is marked by ratings of goals being unimportant, bringing little happiness, and a lack of commitment toward goals. The PCI was adapted for use with offenders (by including items that pertain to prison and offending behavior) and employed as a semi-structured interview (to help rapport and circumvent any literacy problems offenders had) by Sellen et al. (2006). Please see chapter one for full details of the Personal Concerns Inventory – Offender Adaptation (PCI-OA; Sellen et al., 2006) or appendix 1.

A pilot study confirmed the applicability of the PCI-OA with an offending population (Sellen et al., 2006). Sellen et al. (2009) found that like its predecessor, the PCI, the PCI-OA was able to identify motivation profiles that an individual holds. Like the PCI, an 'adaptive
motivation’ and ‘maladaptive motivation’ profile emerged. Additionally, the PCI-OA also identified a new ‘Lack of Direction’ (LOD) factor. This factor represents difficulty knowing how to achieve goals but believing prison and re-offending could help with goal achievement. Individuals who score high on this factor also believe goal achievement will bring unhappiness.

The PCI-OA, rather than being a direct measure of change, may show most promise as a measure of motivation to engage with a treatment programme (Sellen et al., 2006). It may help highlight those offenders who are most likely to engage with treatment, and reap the full effects of treatment in order to bring about behaviour change. Additionally, it may help highlight those that need additional help with the change process. As well as demonstrating potential in measuring an offender’s motivation level, the PCI-OA has also demonstrated promise as a motivation enhancer (Sellen et al., 2009).

Despite the potential of the PCI-OA, caution is warranted. The adaptive and maladaptive motivation factors of the PCI-OA showed acceptable, but lower, internal consistency than those in the PCI (and the LOD factor showed unacceptably low internal consistency), meaning the factor structure of the PCI-OA may not be as robust as the PCI (Sellen et al., 2009). The authors concluded that the PCI (which does not contain items pertaining to prison and reoffending) is the most psychometrically robust; however, they acknowledged that getting offenders to think about their incarceration and future re-offending behavior, and how it impacts on their important life goals, could be motivational. Therefore, the PCI-OA could be useful, but in an alternative format (Sellen et al., 2009).

Sellen et al. (2009) suggested a number of changes should be made to any adaptation of the PCI-OA. These included: (1) working on the ‘when’ scale and taking in to consideration
that the prison system may mean many offenders do not know when they will be released;
(2) Amendment of the prison and offending rating scales to aid clarity and eradicate misunderstanding and inconsistencies in the data. This may lead to an improvement of the psychometrics of the PCI-OA when the prison and offending scales are included in analysis;
(3) Abridgement of the PCI-OA is recommended in order to make it a more time-efficient procedure for practical use. At present the PCI-OA interview takes approximately 2 hours which may be too long for practical use in a prison setting. Additionally, offenders may feel they need to express goals in each of the thirteen life areas which may elicit concerns that are of minor significance (McMurran, Sellen & Campbell, in press). Drieschner & Boomsma (2008) note the PCI-OA yields clinically useful information; however, they state it involves a time-consuming interview that limits its practical utility. Therefore, the challenge exists to refine the PCI-OA in order to develop a reliable and valid measure of offender motivation that contains items relating to offending and its consequences.

2.1.2 **Summary and aims of the current study**

As it stands, the PCI-OA provides a promising base to further explore offenders’ motivation structure. “The PCI-OA offers a theoretically-based measure to understand general life goals and gives us an understanding of an offender’s underlying motivational structure.” (Sellen et al., 2009, p.25).

The current study focuses on addressing previous limitations of the PCI-OA and further refinement issues in order to boost its suitability for work with offenders. The aim is for the PCI-OA to be an inclusive, time-efficient useful tool that can be utilised by practitioners to assess offender motivation for treatment. The changes may, or may not, bring about improvements to the psychometrics of the PCI-OA. However, they were deemed
necessary in order to advance the PCI-OA procedure and, in turn, advance our knowledge of offender motivation and how it relates to treatment engagement and subsequent behaviour change. The sections below first detail the amendments made, before reporting on the implementation and results of a small pilot study with the amended PCI-OA.

2.2 Amendments to the PCI-OA and Justification for the Changes Made

2.2.1 Summary of the amendments made

The amendments made to the PCI-OA include changes to the title of the tool, abridgement of the life areas and rating scales and re-wording of the ‘when’, prison and re-offending scales. These changes are detailed in the below section. For ease of referral, each change is numbered. The pilot study procedure helped to inform some of the changes made to the PCI-OA and amendments occurred throughout the piloting period.

2.2.2 Aspirations

(1) The first change to the PCI-OA was to add the word ‘Aspirations’ to the title (this change mirrors Cox and Klinger’s decision to add the word ‘aspirations’ to the PCI, changing the name to the Personal Aspirations and Concerns Inventory, thereby placing the emphasis on the positive; personal correspondence, May 18th, 2007). The name of the measure then became the ‘Personal Aspirations and Concerns Inventory- for Offenders’ (PACI-O). The Oxford Dictionary (1989) describes the word ‘concern’ as meaning “a matter of interest or importance”. However, it also describes it as an “anxiety or worry”; whereas the word ‘aspiration’ is described as a “hope or ambition”. It could be argued that by using only the word concern, offenders may focus more on areas of worry or anxiety in their life. The aim of the change was to help the offenders focus on the positive things they would like to achieve, in addition to things they wish to cease, avoid or resolve. This focus on positive goal orientated
thinking is in keeping with the aforementioned Good Lives Model (Ward & Stewart, 2003; see chapter 1).

Ward et al. (2006) note an overemphasis on avoidance goals is unlikely to provide a sense of identity and coherence as such goals do not originate from one's sense of self or reflect what the individual genuinely wants to achieve in life. Additionally, individuals who are concerned with avoiding negative outcomes are more likely to have higher levels of psychological distress than those with approach goals (Emmons, 1996). It has been suggested that those providing motivational counselling should assist clients to transform their avoidance goals into approach terms (Klinger & Cox, 2004a). The PACI-O has potential as a motivational enhancement tool, therefore the encouragement of approach goals could prove nurturing for motivational levels.

Nevertheless, Ward, Vess, Collie, and Gannon (2006) say both avoidance and approach goals are critical and excluding either could prove detrimental to an individual. This is because an individual needs to possess the strategies and skills to turn abstract goals to specific outcomes while at the same time detecting and combating threats to their plan (e.g. problematic internal states, lack of external resources or obstacles). Therefore, it is evident that a healthy goal structure may include both approach and avoidance goals. To encourage this, the presence of both the words 'Concern' and 'Aspiration' in the title was deemed most appropriate.
2.2.3 Abridging the PACI-O

(2) The next issue addressed was the length of time it takes to complete the interview (previously 2-3 hours). For issues of efficiency and practicality, the decision was made to abridge the PACI-O whilst aiming to maintain a psychometrically robust measure.

Consideration was given to the most appropriate methods to abridge the PCI-OA. Firstly, systematically excluding the areas that were mentioned least or the areas that elicited the lowest number of concerns (using the data collected in previous studies with offenders) was considered. However, there were fears that by systematically reducing life areas by using the most frequently endorsed, potentially important areas of life and concerns for some would be excluded (Personal communication Klinger & Cox, 28/10/06). Therefore, it was decided that the life areas of the PCI-OA would be consolidated into ‘wider life areas’. This would reduce the number of life areas, and potentially the number of goals voiced, however, it would not exclude potentially important areas. Offenders could still be encouraged to think about all aspects of their lives where they may have important concerns or aspirations. Nevertheless, it is important to consider the impact of potentially reducing the number of goals mentioned. This may compromise the ability to obtain a full understanding of the offender’s motivation structure. Alternatively, this may result in improved validity as offenders may not feel the need to mention unimportant goals in each of the previous 13 life areas and may now be encouraged to mention only those that are most pertinent to them.

It was decided that the 13 life areas could be subsumed into six ‘wider life areas’ and these are shown below in Table 5. The category of ‘other’ was also maintained for any goals that offenders mentioned that did not belong in the existing categories.
Table 5. Personal Aspirations and Concerns Inventory for Offenders (PACI-O) Wider Life Areas

<table>
<thead>
<tr>
<th>PACIO Wider Life Areas</th>
<th>PCI-OA Life Areas Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past, Current, and Future Living Arrangements</td>
<td>Home and Household Matters</td>
</tr>
<tr>
<td></td>
<td>Current Living Arrangements</td>
</tr>
<tr>
<td>Close Personal Relationships</td>
<td>Partner, Family, and Relatives</td>
</tr>
<tr>
<td></td>
<td>Friends and Acquaintances</td>
</tr>
<tr>
<td></td>
<td>Love, Intimacy, and Sexual Matters</td>
</tr>
<tr>
<td>Physical or Mental Health Issues</td>
<td>Health and Medical Matters</td>
</tr>
<tr>
<td></td>
<td>Substance Use</td>
</tr>
<tr>
<td>Recreation</td>
<td>Hobbies, Pastimes, and Recreation</td>
</tr>
<tr>
<td></td>
<td>Spiritual Matters</td>
</tr>
<tr>
<td>Self-Changes and Personal Improvement</td>
<td>Self Changes</td>
</tr>
<tr>
<td></td>
<td>My Offending Behavior</td>
</tr>
<tr>
<td></td>
<td>Problems With Anger and/or Violence ***</td>
</tr>
<tr>
<td>Employment, Training, and Financial Situation</td>
<td>Employment And Finances</td>
</tr>
<tr>
<td></td>
<td>Education and Training</td>
</tr>
<tr>
<td>Other</td>
<td>Other Areas</td>
</tr>
</tbody>
</table>

*Note.* Problems with Anger and Violence was added as a sub-area under Self-Changes and Personal Improvement following comments from prisoners during the pilot test. They often named problems with anger and/or violence as one of their important concerns.

2.2.4 Changes to the wording of the prison and offending rating scales

(3) Sellen et al. (2009) expressed a need for greater understanding and clarification of the role of the prison and offending scales. Due to respondents misunderstanding the questions
asked, these scales have shown inconsistent results in the past, thus making it difficult to examine how ratings on these scales affect motivation in offenders. It is thought offenders often failed to distinguish the subtle difference between the impact of ‘being in prison’ and ‘offending behaviour’ on goals. Some offenders would say that their offending behaviour helped their goals at it resulted in their incarceration which allowed them to get the help that they needed (personal communication, Sellen 2008). Therefore, the questions pertaining to offending behaviour in the PACI-O were changed to ask about how future re-offending would impact on goal achievement. This aimed to get offenders to think about the consequence of any future offending behaviour on their goals, as opposed to the impact of currently being incarcerated in prison.

In a bid to aid understanding, the ‘prison/re-offending help and interfere’ scales have been changed to two continuous scales rated on a scale of 0-10 (where 0 is completely interfere and 10 is completely help). Additionally, qualitative aspects have been incorporated to try to further establish the role of these scales in assessing offender motivation. These new scale changes can be seen in Table 6 below.

Jenkins-Hall (1989) notes the concept of decision making is relevant to all aspects of the therapy process from abstinence to relapse and it instils hope, self-efficacy and self-control. Cox & Klinger (2004c) note that asking clients to make an inventory of gains and losses from continuing or ceasing a target behaviour (in this case offending) is a useful motivation enhancing technique when completed early in the counselling process. It may help resolve any ambivalence the offender may have about entering a treatment programme and changing their offending behaviour. Thus, the introduction of qualitative questions that work on an offender’s decision making process is justified.
The examination of costs and benefits of incarceration and future re-offending may encourage respondents to consider how offending behaviour and the criminal justice system will affect their goals. McMurran & Ward (2004) note that extending and working on an offender’s decision making process in ways which systematically examine the advantages and disadvantages of offending versus engaging in treatment and changing is useful. For this they suggest highlighting with the offender how the problem behaviour (offending) interferes with the individual’s life goals. The offender’s sense of overall benefits of changing versus the overall costs of change may also inform on their readiness to change (Burrowes & Needs, 2009)

**Table 6. Changes to the prison and offending scales, plus added qualitative aspects.**

<table>
<thead>
<tr>
<th>Prison and Re-offending Scales</th>
<th>Required Response From The Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Can you think about and list any ways (good or bad) in which being here in prison may affect things turning out the way you want with regard to this goal?”</td>
<td>Respondent lists any ways they can think of</td>
</tr>
<tr>
<td>“So overall how will the experience of being here in prison affect you being able to achieve this goal?”</td>
<td>Respondent chooses number from 0 to 10, where 0 is prison will (or has) completely interfere with their goal, and 10 is prison will completely help (or has completely helped) with achieving the goal.</td>
</tr>
<tr>
<td>“Can you think about and list any ways (good or bad) in which re-offending in the future may affect things turning out the way you want with regard to this goal?”</td>
<td>Respondent lists any ways they can think of</td>
</tr>
<tr>
<td>“So overall how will re-offending in the future affect you being able to achieve this goal?”</td>
<td>Respondent chooses number from 0 to 10, where 0 is re-offending will completely interfere with their goal, and 10 is re-offending will completely help with achieving the goal.</td>
</tr>
</tbody>
</table>

2.2.5 Amending the ‘when will it happen’ rating scale

(4) Sellen et al. (2009) suggested attention be given to the ‘when will this goal happen?’ rating scale. Due to the prison situation, many offenders found it difficult to express when goal achievement is likely to take place. Often offenders would state they wish to
achieve goals on release. However, the timescales for release varied between offenders and the date of release was often not known. Klinger & Cox (2004b) noted that the ‘when’ scale loaded onto the adaptive motivation factor on the PCI. Therefore, a limitation of the PCI-OA was that this scale was excluded come analysis. Refinement and moderation of this scale may prove useful with regard to assessing offender treatment motivation.

With the PACI-O, rather than answering on a scale of 0-10, offenders are now required to rate whether they see the goal as something they can achieve in either the ‘short-term’, ‘intermediate’ or ‘long-term’. This will be a subjective decision for the offenders as individuals have different interpretations of short and long-term goals.

Offenders are also asked whether they believe the goal is something they think they can achieve in prison. This may prove useful as a measure of behaviour change following a treatment programme. For example, it may be interesting to assess if treatment has made offenders feel like they can start to achieve (or at least put plans into place) their goals in prison.

2.2.6 Other changes

In terms of effective therapy styles, it is important to deliver styles of interaction that will encourage the offender to engage while using appropriate language and concepts (McMurran & Ward, 2004). The following changes were made to the PACI-O consistent with this:

(5) In order to get the offenders to consider and engage with the PACI-O in a more appealing way, ‘Life Area Illustration Sheets’ were constructed (appendix 2). They consist of colour illustrations and very few words describing the types and range of issues under the remit of that particular life area. The offenders are handed the corresponding ‘Life Area
Illustration Sheet’ at the beginning as each area is introduced. It gives offenders something to focus on, and breaks down some of the verbal instruction that is being directed at them. This aims to further circumvent any problems with literacy or understanding. Additionally, a ‘Prisoner Rating Scale Sheet’ (appendix 3) was constructed using large clear words. This can be used by the offenders for reference throughout the interview in order to enhance understanding.

(6) The subject of obstacles to goal achievement is receiving increased attention in the offender rehabilitation arena. Gudjonsson, Young and Yates (2007) developed three scales to assess factors that could be seen as obstacles to motivation levels to engage with and benefit from treatment (and subsequently change offending behaviour. See chapter 1 for details of the scales). Given the importance of obstacles to goal achievement, the PACI-O asks respondents to list any obstacles to their current goals (appendix 4).

(7) McMurran & Ward (2004) argue that it is imperative to have an overall picture of goals and how they fit or don’t fit with each other. Emmons (1999) describes conflict as the “Achilles’ heel” of goal striving. The presence of goal conflicts may dampen motivation to achieve either goal; and thus such conflicts may form an important target for counselling interventions (Klinger & Cox 2004). Therefore, a review sheet has been constructed and added to the end of the PACI-O (Appendix 5). This examines how the offender’s life goals may either conflict or complement each other.

(8) The final change was regarding the PCI-OA rating scale of ‘unhappiness’. The unhappiness scale was less easy to understand for offenders as a high score represented a negative state of high unhappiness whereas high scores on other scales represented a positive emotion towards goals and concerns. Therefore, the unhappiness scale was excluded and the
happiness scale made a continuum whereby 0 meant total unhappiness and 10 meant total happiness.

To summarise, the PACI-O is administered as a semi-structured interview and asks about Aspirations and Concerns across six broad life areas (plus an ‘other’ category) that can be divided into 14 subareas. In the PACI-O, there are 8 rating scales (answered from 0 to 10), and two categorical questions, a place to discuss obstacles to goal achievement and a section for discussing how goals either conflict with or complement each other. A copy of the PACI-O answer-sheets can be seen in appendix 6.

Once the changes were complete, the next step involved piloting the new PACI-O with an adult male offending sample to ensure the changes made meant the procedure was still appropriate for offenders.

2.3 The Pilot Study

2.3.1 Method

Participants: Thirty incarcerated males at HMP Cardiff were approached on the wing and asked whether they would take part in a preliminary pilot study. They were approached regardless of whether or not they were/had attended a treatment programme at the prison. Each offender was given an information sheet to take away and examine before they were to take part.

At the time of recruitment all agreed. However, one prisoner was released before the interview took place and seven withdrew before the interview without explanation. The mean age for the remaining 22 participants was 30.77 (SD = 9.51). They were convicted of a number of offences including grievous bodily harm, murder, possession with intent, burglary and sexual assault. Their number of convictions ranged from 1 – 274. Six of the offenders had
never attended prison treatment programme, whereas the remaining offenders said they had completed one at some point. The majority were white British, but other ethnic origins included Somali, Jamaican and Greek.

Measures: The Personal Aspirations and Concerns Inventory – for Offenders. The PACI-O is described above and can be seen in appendix 6. An information sheet (appendix 7), consent form (appendix 8) and demographic sheet (appendix 9) were also used.

Procedure: The pilot study was approved by the University’s ethics panel, the Head of Psychological Services (NOMS Cymru) and the Prison Governor. As in previous studies with offenders using the PCI-OA, the PACI-O was administered as a semi-structured interview to circumvent any literacy difficulties and to facilitate rapport. Participants were interviewed individually in the resettlement area of the prison. Classrooms were private and quiet with just the participant and researcher present. Each prisoner had the opportunity to go through the information sheet with the researcher to clarify points and ask questions regarding the study. Issues of confidentiality were verbally reiterated for clarification. The instructions were read aloud by the researcher and the nature of concerns and aspirations explained fully. Once the participant understood what was required of them, the researcher read through each life area and detailed the kind of concerns or aspirations that could be encompassed in each section (the life area sheet and rating scale sheet were handed to the participant for their reference throughout the interview). Each life area was introduced to the participant in turn and the researcher noted any concerns or aspirations the participant voiced, as well as how they would like things to transpire, on the PACI-O answer sheet. If the participant had no concerns in one area, the interviewer moved on to the next area. Interviews took between 20 minutes and 1 hour 20 minutes to complete.
Statistical analysis: The aim of the study was to test the suitability of the PACI-O with offenders therefore the results are descriptive and qualitative.

2.3.2 Results

Goals were expressed in all 6 areas as well as two goals coming under the area of ‘other’. Goals were cited most frequently in the areas of ‘past, current & future living arrangements’ (16) and ‘employment, training & finances’ (15). Example of goals cited in the area of past, current & future living arrangements are: “I want to be released straight into accommodation”, “I’d like to get out into a flat not a hostel, they’re full of druggies” and “I want to get a 2 bed flat. A bit of room for when the children come and stay”. Example of goals stated in the area of employment, training and finance are: “I’d like to get another job when I’m out”, “I want to start up my own business when I get out. I have already done a course on it” and “I want to work as a fitness instructor. I want to move up in life”.

The number of goals and mean score for each rating scale is shown overleaf in Table 7. Overall, the offenders in this sample rated goals in the area of ‘self changes and personal improvement’ as most important. However, goals in this area were rated lowest in terms of knowing what to do to achieve them. Thus, offenders in this sample say they want to change and improve, but they don’t know how. An example of a goal in this area is: “I want to be calmer, not react to situations”.
<table>
<thead>
<tr>
<th>Life Areas</th>
<th>No of concerns per life</th>
<th>Mean Importance</th>
<th>Mean Likelihood</th>
<th>Mean Control</th>
<th>Mean Knowledge</th>
<th>Mean Happiness</th>
<th>Mean Commitment</th>
<th>Prison</th>
<th>Reoffending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living Arrangements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close Personal</td>
<td>7</td>
<td>9.42</td>
<td>7.75</td>
<td>5.28</td>
<td>6.92</td>
<td>10</td>
<td>9.14</td>
<td>1.42</td>
<td>0.72</td>
</tr>
<tr>
<td>Relationships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical &amp; Mental Health Issues</td>
<td>11</td>
<td>8.90</td>
<td>7.90</td>
<td>8.00</td>
<td>8.81</td>
<td>8.45</td>
<td>7.54</td>
<td>7.16</td>
<td>5</td>
</tr>
<tr>
<td>Recreation</td>
<td>13</td>
<td>8.15</td>
<td>7.34</td>
<td>6.46</td>
<td>8.30</td>
<td>9.15</td>
<td>8.30</td>
<td>5.00</td>
<td>1</td>
</tr>
<tr>
<td>Self-Changes &amp; Personal Improvement</td>
<td>10</td>
<td>9.90</td>
<td>7.44</td>
<td>6.70</td>
<td>6.80</td>
<td>9.40</td>
<td>9.10</td>
<td>5.16</td>
<td>0.5</td>
</tr>
<tr>
<td>Employment, Training and Finance</td>
<td>15</td>
<td>9.40</td>
<td>8.13</td>
<td>8.60</td>
<td>8.80</td>
<td>9.60</td>
<td>9.06</td>
<td>4.22</td>
<td>0.34</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>9.00</td>
<td>8.00</td>
<td>2.50</td>
<td>5.00</td>
<td>10.00</td>
<td>10.00</td>
<td>5.00</td>
<td>6.00</td>
</tr>
</tbody>
</table>
Prison was rated as helping the offenders' to achieve goals most in the area named ‘physical or mental health issues’, which includes the area of substance abuse. This could be due to the fact that many offenders have substance abuse problems and prison can be a place where they can receive treatment and help for such problems. However, achieving goals in this area was rated lowest in terms of how much happiness goal achievement would bring. This could represent a dichotomy of how offenders may want to give up bad habits with regard to substance abuse but, by doing so, understand there will be an element of unpleasantness involved. It may also represent how without the substances there may be a void, be it social or psychological, that will need to be filled. Not surprisingly, prison was rated highest at interfering with goals regarding close personal relationships. An example of a goal in this area is: “Would like to fall in love and have someone love me. A loving relationship.”

Consistent with previous studies of offenders’ goals (see McMurren et al.’s, (2008) qualitative account of the nature of offenders’ goals), participants expressed a number of positive anti-criminal goals such as finding accommodation, acquiring employment, quitting substance abuse and improving self-control.

The above examples highlight how goals could be used to identify personally meaningful issues that offenders need to address in pro-social ways. The qualitative data can inform treatment services and highlight where offenders need the most support. The mix of normative and ideographic data collected by the PACI-O may serve useful in and of itself to practitioners.

Using indices that had reliably loaded onto adaptive and maladaptive motivational profiles during previous studies with the PCI-OA (Sellen et al, 2006; 2009), participants’ motivation profiles were identified. Profiles were calculated by summing the scores on rating scales that have reliably loaded onto adaptive and maladaptive motivation (see
chapter one for details) and comparing scores across the group under study. It can be demonstrated that despite having the same goal of wishing to obtain accommodation on release, two offenders consider and relate differently to their aim. Figure 6 illustrates the scores on the rating scales for two offenders. Participant 8 was identified as having high adaptive motivation whereas participant 4 was identified as having a more maladaptive motivational structure.

![Graph: Comparison of Motivation Profiles Towards a Goal. Adaptive and Maladaptive](image)

*Figure 6. Comparison of Adaptive and Maladaptive Motivational profiles*

Participant 8 with the adaptive profile rated the likelihood and importance of finding himself a place to live higher than participant 4 who has the maladaptive profile. Although participant 8 said he felt less in control of achieving this goal than participant 4, he expressed more commitment and happiness at goal achievement. It appears that the prisoner with adaptive motivation doesn’t feel 100% in control of being able to acquire accommodation, however he knows it will bring a degree of happiness and, importantly, is fully committed and expecting to make the goal happen. Whereas, despite feeling more in
control and knowing more what to do than participant 8, the offender with a maladaptive profile is not as committed to his goal and believes having his own flat won’t bring as much happiness.

Therefore, despite displaying the same goal, treatment targets could be different for both offenders. Perhaps Participant 8 could be assisted in learning the steps needed in order to find his own accommodation and helped to feel more in control of making the goal happen, whereas Participant 4 could be encouraged to look at the benefits and drawbacks of having his own place versus the alternative options which may either boost commitment level to this goal or prompt the offender to adopt a more suitable goal to his needs.

2.3.3 Feedback from the pilot study

Feedback from the offenders was all positive. Feedback forms were used to improve the scale throughout the pilot phase (appendix 10). Many said the PACI-O helped them to think straight and start planning for the future, for example one prisoner stated “I have benefited as it’s made me think about things. Plan for the future and think about how different things will affect my plan”. Another said “Made me think clearer”.
2.4 Discussion

2.4.1 Summary

The PACI-O is a new generation of the PCI-OA. The changes made to the PCI-OA resulted from recommendations by the developers in order to address limitations and maximise its applicability with offenders. The aim of the current study was to refine the PACI-O for use with offenders and conduct a pilot study with a small sample to assess if the PACI-O was still suitable for use with this population. It was important to establish if offenders responded well to the PACI-O interview, that the questions asked were easily understood without confusion, and that any previous misunderstandings regarding the rating scales was eradicated.

Changes to the PACI-O involved abridging the instrument and reducing the number of life areas. This has lead to a quicker interview time (between 20 minutes and 1 hour 20 in the current study depending on number of goals stated as opposed to over 2 hours for the PCI-OA interview) which may be more practical for use in clinical practice. Other changes included amendments to the wording of the rating scales in order to aid understanding. The offenders in the current sample appeared to engage with the PACI-O and positive feedback was received from those who took part.

The PACI-O is also in keeping with a new alternative approach to offender rehabilitation – the Good Lives Model (GLM; Ward, 2002). The GLM is strength-based and focuses on equipping offenders with capabilities and skills to achieve primary human goods in a personally meaningful and socially acceptable manner (Ward, 2002). Concordant with the positive GLM and previous studies with the PCI-OA (McMurran, Theodosi, Sweeny & Sellen, 2008), a number of pro-social and life-enhancing goals were expressed in the current study. This further supports the applicability of the PACI-O with an offending population and suggests it may have potential as a means of practically
exploring the GLM. The GLM is a popular theory but it is criticised for lacking empirical evidence (Andrews & Bonta. 2003).

The study confirms the PACI-O is an instrument that offenders could effortlessly engage with, utilise to explore personally salient goals and concerns, and even benefit from by initiating preparation to live their lives in pro-social ways (by consolidating plans for the future). The success of the pilot study demonstrates that despite the changes made, the PACI-O still holds potential as an assessment tool of offender motivation.

The PACI-O was developed from a strong theoretical goal-based framework which appears to be amenable with an offending population. Work with the TCC and PCI originated from work in the addictions field (Cox & Klinger, 1988, 1990 & 2004), and later in developments with offenders (Sellen et al., 2006; Sellen et al., 2009). Thus, the PACI-O has strong foundations with which to work and extend from. Like the PCI-OA, the current study suggests that the data collected by the PACI-O can be used to determine offender motivation profiles. However, the PACI-O is more time-efficient than the PCI-OA and some of the previous limitations have been addressed. This may result in changes and improvements to the psychometrics witnessed with the PCI-OA. The reliability and validity of the PACI-O will be examined in chapter 4 and 6 of this thesis).

**2.4.2 PACI-O potential uses**

The detailed, rich idiographic information collected from the PACI-O could be used by practitioners to provide individualised treatment targets and to highlight potential barriers or obstacles to treatment engagement. How an individual cognitively represents their goals may impact on their motivation to seek, avoid or stay in therapy and bring about changes in their lives (Emmons, 1999). Pre-treatment assessment with the PACI-O could help practitioners identify potential problems in an offender's goal or motivational
structure and provide motivational work before therapy. The PACI-O could also be a useful means of exploring the volitional based aspects of readiness to change.

The PACI-O may have potential as an outcome measure to assess how an offender is progressing on a treatment programme. If treatment is successful we could expect changes on some of the ratings scales (e.g. increased commitment to goals, a greater sense of efficacy when it comes to achieving goals), refinement of existing goals (perhaps substituting any unachievable or anti-social goals with more feasible satisfying goals) or the addition of new goals as others are achieved or relinquished and the offender starts looking to live their life in pro-social ways.

The above uses may be extremely helpful for practitioners. However, the hope is that the PACI-O could hold additional potential as a valid measure or enhancer of offender motivation for treatment. Once validation studies have been completed, the PACI-O needs to be systematically tested using rigorous research designs in order to assess its true potential. If the PACI-O does prove to be a either a measure or enhancer of motivation, it could be of considerable use to offender management services. This thesis aims to test some of these assumptions to assess the potential of the PACI-O for use with offenders.

2.4.3 The PACI-O as a measure of treatment motivation

Treatment motivation is thought to predict treatment engagement (Drieschner, Lammers & Van Der Staak, 2004). Therefore, it needs to be established whether motivation (as measured by the PACI-O) is associated with an offender’s engagement in a prison treatment programme. A study looking at the predictive validity of the PACI-O is reported in chapter 6 of this thesis.

If the PACI-O could be used as a measure of treatment motivation this could mean a reduction in the risk of non-completion (which may result in a higher risk of reoffending; Cann, Falshaw, Nugent, & Friendship, 2003; Hanson & Bussiere, 1998; McMurry &
Theodosi, 2007; Hanson & Harris, 2000) because the PACI-O may more accurately select offenders that are most suitable for treatment. Additionally, it could identify those offenders who need additional help before they are ready to fully reap the rewards of a treatment programme.

In previous studies motivation structure has not been shown to be correlated with recidivism (Sellen et al., 2009). The PACI-O may measure motivation for a treatment programme, rather than directly measure motivation for change. Therefore, its use may be through the prediction of offenders who are likely to engage in and complete the treatment programme (therefore, negating any ill effects of treatment drop-out). Nevertheless, the changes made to the PACI-O mean there is renewed potential to directly re-assess the relationship between motivation structure and recidivism.

2.4.4 How the PACI-O could be a motivation enhancer

Like the PCI-OA, the PACI-O holds potential as a motivation enhancer. The extra attention to important life goals and the consideration of the impact of prison and future re-offending may encourage offenders to engage in treatment and start to change their lives in order to achieve goals. The changes made to the PACI-O involved the addition of qualitative questions which will trigger an offender’s decision-making process. The PACI-O highlights how their incarceration and future behaviour affects the things that are really important to them. This may prove motivational for treatment (McMurran et al., in press) and, in time, lasting change. It is imperative to identify how offending impacts on life goals (McMurran et al. in press), and the PACI-O does this by exploring with offenders how their current incarceration has impacted on their goals. Additionally, the consequences of future re-offending are explored through the particular impact it has on life goals. The aim is that a sense of hope, self-efficacy and self-control can be installed, through realisation that, despite past behaviour, the offender still has choices about the future (Jenkins-hall,
A separate review area for obstacles and goal conflicts was added to the PACI-O. This may be motivation enhancing as the presence of goal conflicts may reduce motivation (Klinger & Cox 2004). Therefore, such obstacles can be identified and targeted by intervention.

It could also be used as a basis for motivational enhancement during a treatment programme (especially for those with low motivation e.g. high risk mandated to treatment offenders) to maintain motivation at adequately high levels to allow treatment to interact with the motivation and elicit change. It may maintain motivation during treatment and discourage drop-outs.

Additionally, it is important that any short-term gains from treatment are maintained and turned into long-term change. Maguire & Raynor (2006) note that the ‘What Works Literature’ states that unless the learning from prison treatment programmes is reinforced after completion, then much of the benefit may be lost. Now it is more time-efficient, the PACI-O could be used time and again; maybe at parole to keep offenders’ focused on what their goals are and to maintain adequate levels of motivation to conduct their lives in pro-social ways.

Studies need to be conducted to assess whether an increased awareness, or attention of personal goals (by completing the PACI-O before a treatment programme), leads offenders to engage more in the treatment programme than offenders who attend treatment only. If the PACI-O does indeed enhance treatment engagement then it could be utilised as a motivational accompaniment to work alongside a treatment programme that focuses on risk reduction. It may also be important to assess the additive effect of the PACI-O with a treatment programme to examine whether this leads to an increased motivation for change and a reduction in risk of re-offending. Chapter 7 of this thesis examines the potential of the PACI-O as a pre-treatment motivation enhancer that could increase treatment
engagement, determination to change and lead to reductions in risk factors for re-offending.

2.4.5 Limitations of the study

Some limitations of the previous PCI-OA still exist with the new PACI-O, i.e. the reliance on self-report. It stands to reason that offenders could present themselves in a more positive light than what is true in a bid to minimise restrictions and sanctions that could arise upon declaration of low motivation. However, it is believed the PACI-O is not quite as transparent as other methods of self-report. Besides, McMurran (2004) notes that while trying to establish the accuracy of an offender’s claim of commitment to change is important; it may be beneficial to capitalise on the expression of willingness to change regardless of the origin of this motivation (i.e. internal or external). This can be achieved by examining the structure of the offender’s motivation by person-centred means; thus nurturing whatever level of motivation may exist (McMurran, 2004). So, while self-report data may have its limitations, it clearly has its uses. The goal setting theory approach assumes that introspective reports have the potential to provide meaningful and valid data in order to formulate psychological concepts and measure various psychological phenomena (Locke, 1996).

Another limitation is that the pilot study was small, and the numbers too few for reliable statistical analysis. Larger studies are needed to validate the new PACI-O. Nevertheless, the pilot study met its aims to confirm the potential utility of the PACI-O and demonstrate its feasibility for use with offenders.

Caution must also be warranted with regards to assuming relationships between treatment motivation, treatment engagement and change. Even if the PACI-O proves to be a valid measure of motivation for treatment, we cannot automatically assume that high motivation for treatment equals high motivation for change. Nor can we assume that high
treatment engagement leads to a reduction in re-offending. However, what we do know is that low motivation for treatment can result in treatment drop-outs and this can lead to an increase in re-offending (e.g. Cann et al., 2003; Hanson & Bussiere, 1998; McMurrn & Theodosi, 2007; Hanson & Harris, 2000). Therefore, the fact remains that ways of enhancing and sustaining offender motivation for treatment is imperative. The PACI-O is one such procedure that could assist in this practice. Its specific applicability remains a question for future research.

2.4.6 Conclusion

The PACI-O is in keeping with the more positive approach to offender rehabilitation that is currently being adopted. The PACI-O was well received by the offenders in the pilot sample and appears to be suitable for exploring an offender’s motivation for treatment. It was noted by some that it motivated them to start planning for the future. Therefore, the PACI-O shows potential as a motivation enhancer as well as assessment of motivation. This is a paradox that warrants further attention.

As well as establishing the psychometric properties of the new PACI-O it must also be explored whether it is better suited as a measure of motivation or whether its motivation enhancing properties should utilised as a motivation enhancer. It may be the case that the PACI-O is better understood as an assessment to identify the initial motivational structure of the offender. Understanding motivational structure would allow the identification of those offenders who are most likely to engage and those who may need more pre-treatment motivational work to become ready for treatment programmes. The PACI-O would then provide the framework for individualised brief interventions, helping people to improve their treatment readiness and potential to engage. This can only be established through further research.
Therefore, future work with the PACI-O should involve exploring and testing these assumptions. This will advance knowledge of offender motivation and help demonstrate how this interacts with treatment to bring about lasting change in offending behaviour.

2.4.7 Key points of the chapter:

- The PCI-OA (Sellen et al., 2006, 2009) has been amended and refined and is now called the Personal Aspirations and Concerns Inventory - for Offenders (PACI-O).

- A pilot study confirmed that the PACI-O is a suitable procedure for exploring an offender’s motivation structure.

- Some recommendations of the future directions of the PACI-O were made and key points of research in this thesis identified.
Chapter 3 – Randomised Controlled Trial Methodology and Offender Characteristics

Summary

The main body of work in this thesis involved the planning, execution, analyses and reporting of a Randomised Controlled Trial (RCT) feasibility study at two UK prisons in order to evaluate the potential of the Personal Aspirations and Concerns Inventory- for Offenders (PACI-O).

This chapter details the methodology of the RCT trial and the sample characteristics of the offenders involved (the reported sample was also used for a number of studies in this thesis to varying degrees; see chapter 4, 5, 6, 7, and 8). Details include justification for the RCT technique and the procedure involved. The sample characteristics include details of the prison populations used, demographic details and the goal characteristics of the offenders.

The aim of the chapter is to provide details of the methodology, procedure and sample used in the remaining chapters in this thesis. Any deviations from what is reported below are specified in the relevant chapter.
3.1 Methodology- Randomised Controlled Trial

3.1.1 The aims of the current randomised controlled trial

Chapter 2 introduced an assessment of offender motivation that holds potential as a measure of treatment motivation as well as a treatment motivation enhancer. The Personal Aspirations and Concerns Inventory--for Offenders (PACI-O; appendix 6) is a goal-based semi-structured interview procedure that asks offenders to state concerns and aspirations in a number of life areas (thought to be pertinent to offenders) and then requires respondents to rate their goals on various indices such as the perceived value, attainability & imminence of goal attainment. Offenders are also asked how they believe prison and any future re-offending will impact on their goals.

Evidence presented in chapter 1 suggests why attention and focus on goals may boost an offender's treatment motivation. For example, by using goals as part of assessment means utilising personally meaningful and relevant material (Karoly, 1993). Focusing on important life goals may encourage offenders to engage more with a treatment programme. By breaking down large goals into more manageable goals and discussing them makes offenders feel more capable of success (Sellen, McMurran, Cox, Theodosi & Klinger, 2006). However, it may not just be the offenders’ goals per se that affect motivation; it may also be motivation structure that is important (Sellen, McMurran, Theodosi, Cox & Klinger, 2009).

Later in this thesis, a randomised controlled trial feasibility study (RCT; chapter 7) will be reported, this was conducted to assess if the PACI-O completed before a treatment programme could enhance treatment motivation which would lead to improved treatment effectiveness. Treatment effectiveness in this thesis refers to engaging in and completing treatment and acquiring positive treatment benefits (e.g. improved motivation structure and reductions in dynamic risk factors that are linked to recidivism).
The purpose of this chapter is to report the RCT methodology and sample characteristics of the offenders who participated in the thesis studies. For the RCT, offenders were randomly assigned to one of two groups: the experimental or control condition. In the experimental condition, offenders completed the PACI-O before attending the usual Enhanced Thinking Skills (ETS) treatment programme. Offenders also completed the PACI-O as a follow-up outcome measure after treatment. The control condition attended usual ETS treatment only. The control condition offenders only completed the PACI-O as a follow-up outcome measure after ETS.

3.1.2 The chosen outcome measures

The outcome measures were chosen for the RCT feasibility study for a number of reasons. Because many of the offenders would not have been released by the time of data analysis (or would not have been out on release for a long enough period of time), the outcome measure of recidivism was deemed unsuitable for the current studies. Therefore, the outcome measures focussed on short-term measures of treatment success. However, it is important that the outcome measures used are guided by theory rather than being arbitrary choices.

The primary outcome measure is to assess improvements in motivation structure in the form of increased adaptive motivation following the PACI-O in addition to treatment compared to treatment alone. Adaptive motivation has been found to be positively related to determination to change in substance abusers in treatment (Cox, Blount, Bair & Hosier, 2000). If this profile is associated with determination to change in offenders, then the enhancement of adaptive motivation may be a worthwhile pursuit. Chapter 4 of this thesis examines the factor structure of the PACI-O, before exploratory studies with adaptive motivation are conducted.
A secondary outcome measure is the degree to which offenders were deemed (by the treatment tutors and by their own admission) to have engaged in the ETS programme. Treatment engagement was chosen as a meaningful outcome measure because motivation is needed to engage in treatment (Barrett, Wilson & Long, 2003) and engagement in treatment is needed for completion (Macgowen & Levenson 2003). As noted earlier in this thesis, completion of the treatment programme is necessary in order to reap the full rewards and to avoid the damaging ramifications of dropping out. The Staff Treatment Engagement Questionnaire (STEQ) was used to measure treatment engagement. This is a new scale designed especially to measure the construct of treatment engagement in a cognitive prison-based treatment programme. Preliminary studies suggest the STEQ is a reliable and valid measure (see chapter 5 for details and appendix 11 for a copy of the STEQ).

The final outcome measure is post-treatment scores on the Eysenck Impulsivity Scale (EIS; Eysenck & Eysenck, 1978; appendix 12). The basic premise underpinning offender management programmes is the reduction of the dynamic risk factors associated with criminal behaviour, in a bid to reduce the likelihood of re-offending (Hollin, 2008). A dynamic risk factor is a changeable risk factor (as opposed to a static risk factor such as age at first offence; Andrews & Bonta, 1998). Impulsivity is viewed as one such ‘dynamic risk factor’. Therefore, reductions on this measure were taken as a measure of treatment effectiveness and success. There are a number of questionnaires administered both before and after ETS measuring dynamic risk factors (see chapter 7 for details). However, the EIS was chosen over others for several reasons.

Impulsivity is a feature of normal behaviour and ‘normal’ individuals can be more or less impulsive (Evenden, 1999). However, the range of impulsivity scores on the EIS differs between offenders and non-offenders, with offenders being viewed as more
impulsive (Nugent, et al., 2005). McDougall, Clarbour, Perry and Bowles (2009a) used
the EIS as their primary outcome measure in a large-scale RCT assessing the effectiveness
of ETS because research has shown impulsivity is associated with offending behaviour
(Blackburn, 1972; Eysenck & McGurk, 1980; Mak, 1991; Robinson, Porporino, & Beal,
confirmed that the completion of the ETS programme could significantly reduce offenders’
impulsivity (as measured by the EIS). Therefore, it was logical to judge this aspect of the
PACI-O’s effectiveness by its ability to reduce impulsivity levels above and beyond what
ETS alone can do. The EIS scale has been found to be a reliable and stable measure of
impulsivity in offenders (Nugent, Geohagan, & Travers, 2005). McDougall et al., (2009b)
also confirmed the reliability and validity (construct validity, convergent validity internal
and external reliability) of the EIS with their sample of an offending population.

RCTs are often seen as the ‘gold standard’ of research designs, therefore a RCT
was deemed the best research design to conduct a feasibility study to assess the potential
of the PACI-O as a motivation enhancer that can lead to increased positive effects
following completion of an offender treatment programme.

3.2 Introduction to Randomised Controlled Trials

RCTs have several features that make them distinct from other types of research
trial. RCTs involve the random allocation of participants to intervention (and/or control)
groups, to ensure all groups are treated equally apart from the experimental treatment
(Sibbald & Roland, 1998). The RCT approach to intervention evaluation also requires

Farrington & Jolliffe (2002) note that the main advantage of a RCT is that it
equates those in the experimental condition to those in the control condition on all
measured and unmeasured variables that may influence key outcomes. Therefore, this may
reveal genuine effects of an intervention/treatment that cannot be attributed to prior differences between the groups. Indeed, RCTs help ensure that the results obtained from statistical tests are valid (Kang, Ragan, Park, 2008), and they are thought to be the best methodology to look for small to moderate effect sizes while reducing selection and confounding factors (Schulz & Grimes, 2002).

3.2.1 Problems conducting a randomised controlled trial in a prison setting

RCTs are often seen as the most rigorous of clinical trials. However, at present, there have been very few RCTs conducted in UK prisons (Farrington & Jolliffe, 2002). This is likely to be due to a number of reasons.

Firstly, there are the practical problems when implementing such a methodology in a prison setting. For example, access to certain offender groups, as and when needed, can be impractical; and issues such as high turnover rates (released or transferred offenders) makes research in correctional settings a challenge (irrespective of the research methodology). The issue of insufficient numbers of participants available for randomisation is also problematic. It is important to ensure that there are sufficient numbers of potential participants that are available to attend the treatment/intervention in question to allow for rigorous analyses (McDougall et al., 2009a). Therefore, prior thought needs to be given to participant flow within the specified trial time-frame.

It is also important to take into consideration the extra work demands of the staff inside the prison establishment and ensure the RCT does not disrupt usual practice. RCTs require working to a strict standardised procedure. Therefore, researchers need to liaise with correctional staff to ensure the proposed trial is feasible for both offenders and staff.

Next, there are ethical concerns regarding withholding or delaying treatment with offenders. It could be argued that withholding potentially effective treatment from offenders may result in detrimental affects to the prisoner (psychological as well as
practical, i.e., decisions about release or security classification dependent on attending treatment), fellow offenders and staff as well as public safety in general (if a prisoner in the control group went on to commit another crime, it could be questioned whether it could have been preventable). There may well be political ramifications associated with denying an individual prisoner treatment (Hollin, 2008).

However, despite the potential problems, conducting RCTs in UK prisons may prove worthwhile in terms of providing sound research into the effectiveness of treatment programmes or interventions. There needs to be ongoing trials to assess the feasibility of RCTs in evaluating the effectiveness of offender interventions and treatment. Feasibility studies would allow for methodological problems to be highlighted; these in turn could be then addressed in future studies. Despite the difficulties of conducting RCTs in a prison setting, the current study aimed to overcome the problems associated with RCTs in a correctional environment. This research is at the forefront of rigorous research designs in a bid to assess the potential uses of the PACI-O with an offending population.

3.2.2 Randomised controlled trials in correctional settings

Farrington et al., (2002) conducted a RCT to evaluate two intensive regimes for young offenders; the ‘Thorn Cross High Intensity Training’ and the ‘Colchester Military Corrective Training Centre’. However, they encountered some of the aforementioned methodological problems. Due to case-flow problems of available participants, random allocation was not always possible. The authors attempted to match control participants to the experimental participants. However, they accept that the matching was not exact and the control cases were higher risk than the experimental group of young offenders (Farrington et al., 2002).

Farrington & Jolliffe (2002) conducted a RCT feasibility study to assess whether a RCT was a suitable way to assess the ‘Whitemoor Intervention’ for prisoners with
Dangerous and Severe Personality Disorder (DSPD). They highlighted a number of limitations of conducting a RCT at Whitemoor with such a population. These included the small case-flow of available participants, the heterogeneity of the DSPD prisoners, the length of the proposed treatment and the likelihood of drop-outs.

McDougall et al. (2009a&b) were the first to conduct a large scale RCT in HM prison service in recent years. Their study evaluated the immediate effectiveness of the ETS programme with 408 offenders. They successfully circumvented the previous problems associated with RCTs and concluded that adult male offenders who completed the ETS programme showed a statistically significant reduction in levels of Impulsivity (as measured by the EIS), compared to those in a waiting list control condition that did not receive ETS (with an effect size of 0.39 reported). This reduction in impulsivity was maintained at 3 month follow-up.

McDougall et al. (2009a) note that despite the difficulties of conducting a RCT in such an environment, they should nevertheless be employed where possible to ensure a sound research evidence base for policy decisions and practice.

3.2.3 Dealing with potential problems of conducting a RCT in prison in the current study

It was imperative to give thought to the extra demands a RCT would place on prison staff. The researcher was issued with prison keys in order to move around the prison unaided. However, extra demands were put on the prison officers who had to escort the interviewed offenders. The current study also placed extra demand on the ETS staff by adding to paperwork that must be completed following the ETS course. However, despite this, no major concerns were raised to the researcher regarding the research. It was assumed, by the researcher, that the extra work was offset by the potential gains such a study could give to knowledge in the offender rehabilitation area.
To ensure there would be adequate offenders suitable for eligibility for the study and subsequent randomisation, the researcher liaised with the ETS manager and tutors. It was important that there would be adequate participant flow to assign meaningful numbers to each condition. The ETS case flow at the first prison was 70 per annum. This was deemed appropriate for the researcher’s need. The study was classed as a feasibility study, therefore a fixed number of participants were not specified at the beginning of the study. However, due to operational difficulties (fresh concerns over case-flow), three months into the study a second prison was approached and the research conducted there also. An additional researcher was recruited to assist in concurrently collecting the data at the second prison using the PACI-O.

Finally, it was important that the ethical implications of the study were assessed, namely, is it ethical to withhold a potentially effective motivation intervention from certain offenders? This problem was negated as the offenders in the control group did receive the PACI-O before release and in conjunction with ETS, albeit in a different order to the experimental group. If the control group missed out on anything, it would be hoped that any potential benefits gained from the PACI-O interview could be retrieved at this point. Nevertheless, it could be argued, if successful, that it is the completion of the PACI-O before treatment that boosts an offender’s motivation for treatment and subsequent change. Therefore, the offenders in the control group had this potentially beneficial combination withheld from them. In that case it would be argued that it did not seem unethical to withhold the administration of the PACI-O before treatment as, at the time of testing, the PACI-O was an unvalidated tool. There was no empirical evidence to suggest the PACI-O would be effective at delivering any positive (or indeed negative) effects. An ethical argument in favour of conducting a RCT is that the benefits (providing convincing evidence for an intervention’s effectiveness) outweigh the costs (withholding treatment from the control condition; Farrington & Jolliffe, 2002).
By circumventing the ethical consideration of withholding treatment and ensuring the control group also receive the PACI-O (albeit after treatment), potential problems could arise when making comparisons between the groups in the future (e.g. recidivism rates), as all the offenders would have received the PACI-O and treatment. Nevertheless, the participants could still be followed up and assessed as to whether STEQ, adaptive motivation or EIS scores are indeed correlated to recidivism rates. These offenders could also be compared to a normative sample of recidivism rates from offender group norms. The following up of the current sample of offenders is strongly recommended for future research for the above reasons. It is important that measures of short-term treatment success are related to long-term behaviour change.

Other ethical issues include the right to refuse and withdraw from the study. It was explicitly explained to potential participants that refusing to take part (or indeed taking part) would not have any effect on decisions made about them or how they were treated in the establishment. They were also free to withdraw from the study at any time. Both the experimental and control group had the choice as to whether to consent to the study or not.

3.2.4 RCTs – the only way to research?

Despite RCTs often being recognised as the most robust means of evaluation research, there are critics of the approach. A criticism levied at the use of RCTs in psychological evaluations is that in the medical field the administration of medicine requires minimal contact between doctor and client. Yet for a psychological treatment to be successful, extensive contact between client and therapist occurs; thus introducing potential confounding factors (Marshall & Marshall, 2007). Additionally, internal validity is maximised in a RCT (by adhering to strict sampling criteria and rigorous control of the intervention) sometimes at the expense of external validity (Hollin, 2008). Thus, the control of the intervention may create an unnatural environment that is unfeasible in the
real world. However, in the current study the researcher ensured that the design of the RCT did not impinge on the running of ETS as usual. As a result, the current RCT aimed to maximise internal validity while conducting the research in a natural real-world environment.

Marshall & Marshall (2007) note that when conducting RCTs with sexual offenders it is unlikely that groups can truly ever be matched on the myriad of different static and dynamic factors that could affect outcome. Despite this, it was assumed the sex offenders attending ETS in the current study were fairly homogenous on important risk factors and variables due to the selection process for ETS (i.e. the targeting of medium to high risk offenders).

Hollin (2008) states that well designed quasi-experimental designs that control for fundamental group differences can produce results comparable to that of some RCTs. Such a research design may result in avoidance of a number of the potential difficulties of conducting RCTs in a prison environment (such as case-flow problems or ethical concerns about withholding treatment etc). However, Hollins notes that despite controlling for offender differences, the lack of randomisation in a quasi-experimental study is likely to lead to some systematic variation between groups. McDougall et al. (2009a) argue that despite the difficulties of conducting a RCT in a prison environment, RCTs should nevertheless be employed where possible to add to the current knowledge base on offender rehabilitation. Feasibility studies, such as the research reported in this thesis, are important in order to assess and address potential limitations of such a technique. Then, in future studies, such problems can be overcome and a deeper understanding of the impact of offender motivation on treatment engagement and outcome can be gleaned.

Hollin (2008) argues against RCTs being the only way to acquire knowledge on the effectiveness of an intervention. So while RCTs definitely have their place in criminal
justice research, a range of research designs (both quantitative and qualitative) are needed to evaluate interventions. The current research aims to contribute and compliment the body of sound findings derived from well-designed research methodologies in order to further understand offender motivation, treatment and change.

3.2.5 The randomisation method employed in the current study

There are several techniques to select from when undertaking randomisation. Most common are simple and block randomisation. Simple randomisation is where the condition for each individual is determined independently with no restraints (Altman & Bland, 1999). However, simple unrestricted randomisation may be unsuitable with smaller samples (under 200) as it could result in disparate sample sizes due to different numbers of participants being allocated to the experimental conditions (Schulz & Grimes, 2002). Therefore, it may be appropriate, depending on sample size, to use block randomisation. Blocked randomisation is the most frequently used restricted sequence generation procedure (Schulz & Grimes, 2002).

In the current study, random permuted blocks of equal fixed size were used with an allocation ratio of one-to-one. It is the norm that block sizes be multiples of the number of treatments (Altman & Bland, 1999) and there were two conditions in the current study. Therefore, a block size of ‘4’ was deemed appropriate for this sample size as large blocks control balance less well (Altman & Bland, 1999).

Schulz & Grimes (2002) say that if blocked randomisation is used in a trial which is not double blind then block size should be randomly varied to reduce the chance of the schedule being seen by the person who recruits the participants. They suggest longer block sizes (i.e. 10 or 20 rather than 4 or 6) and randomly varying the block size to maintain unpredictability. However, this was counteracted in the current study by the concealment of the allocation sequence from the researcher. It is desirable that the individual involved
in the generation of the allocation scheme, should not be the same person who ascertains eligibility, conducts the treatment or assesses the outcome (Schulz & Grimes, 2002). A third person (the researcher’s supervisor at the University) held the computer generated list of numbers and sequence and was handed the list of (non-identifying) prisoner numbers for randomisation by the researcher. The generation of a proper random sequence offers large rewards in terms of scientific accuracy and credibility (Schulz & Grimes, 2002). Once allocated to either the control or experimental condition, the numbers of the offenders were then handed back to the researcher in their allocated groups. This procedure was conducted over electronic mail.

Stratification with small samples (under 50 per group) is recommended as it can avert imbalances on prognostic factors (Schulz & Grimes, 2002). It was thought there may exist important characteristic differences between the sex offending and general population prisoner groups. Although present in general offender samples, sexual offenders are a population thought to manifest cognitive distortions such as denial and minimisation, social functioning issues and problems with empathy (Marshall, Anderson, & Fernmadez, 1999). Additionally, sex offenders are generally older than the average prisoner, are more likely to be married, tend to have children, are not habitual substance abusers and often do not have previous convictions (Daeid, Lynch & Wideman, 1998).

Furthermore, the general prison and sex offending populations were housed in different institutions. It is a good idea to stratify by centre in a multi-centre trial like in the current study (Schulz & Grimes, 2002). Therefore, a stratified block randomised procedure was employed, ensuring equal amounts of both sex offenders and general population offenders were evenly distributed between the two groups (experimental and control). The above technique was the most appropriate strategy given the sample size (<100) and the multi-site trial. Block randomisation was used to generate separate randomised schedules for each stratum. The decision was made not to stratify any further groups because
multiple strata in smaller studies may result in combinations that exceed what is practical, or the combinations may be so rare that group balance is not achievable (Altman & Bland, 1999).

3.2.6 Procedure for randomisation

Following the ETS risk/needs eligibility and suitability assessment, offenders were selected by the ETS treatment managers to attend the next schedules programme. The researcher was not involved in this process. Next, the ETS treatment manager informed the researcher of the final list of offenders who would be attending treatment approximately 7-10 days before treatment was due to start. The names were then passed to the third party for randomisation.

3.2.7 Other considerations of the design

Offenders were not blind to the condition they were in and would have completed the PACI-O, treatment and post-treatment psychometrics knowing whether they were to receive the PACI-O before or after treatment.

Treatment managers were not explicitly told as to which condition the offenders were assigned. However, by the researcher's presence at the prison on certain days and by the researcher enquiring certain information, in some cases, the offenders' conditions could have been guessed by the prison staff. The researcher who was responsible for data collection and analyses was aware of the condition each offender was assigned but was not involved in the delivery of the ETS course or the allocation of participants to the conditions.

A placebo intervention for the control group was not provided. Therefore, it could be argued that any positive effects in the experimental condition could be due to the increased attention in the run-up to treatment. However, all offenders attending ETS have
increased attention in the run-up to ETS relative to other offenders in the population. Offenders usually attend several interviews and assessments, and thus the effects of attention gained from just one more interview for the experimental participants would be negligible. Thus, any positive effects from the interview could be attributable to completing the goal-based PACI-O. In the current study, the active ingredient of the intervention is the additional focus on personal goals before the completion of standardised ETS treatment.

Nevertheless, an element of caution is warranted. McCarney et al. (2007) note that the magnitude of the Hawthorne effect (Landsberger, 1958) in most clinical trials is hard to gauge due to the extra attention both the experimental and control condition receive. They note that it may result in an inflated estimate of effect size in routine clinical settings by overestimating response in both groups due to the increased attention of participating in research.

Another potentially biasing factor is the psychological effect of the control group knowing that an intervention of some sort was being withheld. However, this was negated as all offenders were approached in a standardised way and were made aware that they would be receiving the PACI-O either before, or after, treatment. Therefore, no person would miss out on the opportunity to participate in the PACI-O interview if they so wished.

Finally, all PACI-O interviews were conducted in a standardised manner regardless of allocated group in order to ensure treatment/intervention integrity, as is required in RCTs (Marshall & Marshall, 2007).

### 3.2.8 Deviations from RCT protocol

Ideally, potential candidates should be evaluated and any who do not fit the inclusion criteria or refuse to participate should be excluded immediately before
randomisation. This is because these individuals may be atypical relative to the sample population. However, in the current study the randomisation process occurred before the researcher was able to meet the potential participants. Thus some offenders refused to take part in the study or were excluded for not meeting inclusion criteria after they had been randomised to groups. This deviation occurred due to time and practical limitations on the researcher in the week between being given the potential offenders names and the start of the ETS programme. However, the recommendation is that future studies evaluate the suitability of potential candidates before the randomisation process. In the current study three participants in the experimental group (one offender refused and two had previously completed the PACI-O) and five participants in the control group (five offenders refused) were excluded after randomisation (please see CONSORT diagram appendix 13). These numbers were deemed relatively low, and it is assumed this deviation from protocol did not bias results.

3.2.9 Participant flow throughout the study

One hundred and twenty offenders were originally randomised; however participant attrition occurred in a number of ways. The impact of offenders who dropped out of ETS treatment or who were lost to follow-up in the study had a different effect on each of the outcome measures. The CONSORT diagrams (appendix 13) detail the flow of participants throughout the study. Further details are also given in chapter 7.

3.2.10 Dealing with drop-outs

It is imperative that drop-outs are dealt with appropriately in the analysis of RCTs. This is because there could be important differences between participants who comply and those that don’t (Gravel, Opatrny & Shapiro, 2007). RCTs routinely suffer from non-compliance and missing outcomes from drop-outs and non-response from follow-up (Booil, 2007).
On approach, one participant in the experimental group refused to take part in the study, whereby five participants in the control group refused to take part when asked. Therefore, it could be argued that the experimental group contained more motivated or compliant participants than the control group to start. However, by refusing to take part in the study, the researcher did not have consent to glean information regarding motivation, treatment engagement or psychometric measures on any of these offenders to test for baseline differences. Nevertheless, the RCT design of the study should counteract any of these effects if they do indeed exist.

There were 3 ETS treatment drop-outs from both groups. Treatment drop-outs are defined in this study as offenders who failed to complete the full treatment programme; or those, that at the last minute, did not start treatment and were replaced by someone else. The two-fold definition of treatment drop-out is a potential limitation of the current study. It was hoped that the researcher would be informed of those offenders who failed to start treatment at the last minute and were replaced in good enough time to randomise the replacement potential offender. However, this was not always possible. This was due to prison staff work demands and the researcher’s role within the prison (obliged not to place additional pressure or demands on correctional staff). Therefore, if the researcher later found out that a prisoner had pulled out of treatment at the last minute and been replaced then that original offender was treated as a treatment drop-out. Despite the potential limitation of the technique, there were only six offenders deemed to have dropped out of treatment. Therefore, it was assumed these small numbers would not have skewed the results.

In future studies, if numbers allow, a sensitivity analysis could be conducted to ensure missing data did not bias the results. It was not possible to obtain motivation information on the study refusers and drop-outs in the current study. However, this
information could prove informative in the future to ensure that the given sample is representative of the population of interest.

3.2.11 Intention To Treat and Per-Protocol Analyses

The Intention To Treat (ITT) technique means clients are analysed as randomised regardless of treatment received (Gravel et al., 2007). In the McDougall et al. (2009a) study, ITT analysis meant all offenders were analysed as being in their randomised group regardless of whether they started or completed the course, or crossed over to the other group. They employed this technique in their study in order to ensure that it wasn’t only motivated offenders taking part (which may lead to selection bias); only offenders with no baseline and follow-up data were excluded from the ITT analysis. Gravel et al. (2007) undertook a cross-sectional review of the RCT literature to assess what proportion of studies claiming to use ITT analysis actually did. They noted that 23 studies claimed to use a modified ITT analysis. They noted that rather than this being a methodological weakness, they praised the studies for providing a clear description of their analysis and allowing the reader to assess the risk of bias. Transparency is the key in RCTs, and the current study adheres to this principle.

McDougall et al. additionally used a more liberal ‘Treatment Received’ analysis (participants are analysed according to what treatment they actually received). Another technique is Per-Protocol (PP) analysis. This means only participants who successfully complied with the treatment protocol are included in the analysis (Sackett & Gent, 1979).

ITT analysis is often deemed the gold standard when it comes to estimating effect size in RCTs (Booil, 2007). However, even though ITT is the ‘cleanest’ form of analysis, it allows little to be learned regarding the effectiveness of the treatment when many of the treatment group do not comply (Hollin, 2008). The type of analysis used in RCTs is usually dependent on whether an ‘exploratory’ (measures the direct effect of the
intervention under controlled conditions. E.g., ideally, this is what would happen) or 'pragmatic' (the impact of the intervention had it been introduced to routine clinical practice) study is intended (Everitt & Wessely, 2004). It was deemed desirable for the current RCT to explore both if possible. Therefore, the aim was to employ an ITT analysis (pragmatic), and to explore the direct effect of the PACI-O on the outcome measures a PP analysis was also intended (exploratory). The exploratory trial is an important part of treatment evaluation and necessary before a pragmatic trial is undertaken (Hollin, 2008).

Cross-overs were not permitted in the study (i.e., if someone in the experimental group failed to turn up to the initial pre-treatment interview then by default they could become a control, treatment only, participant). A ‘Treatment Received’ analyses was not justified during the current study for fear of bias and contamination.

3.3 Sample Characteristics of the offenders used in the thesis studies and procedure

Two South Wales prisons were approached with the research proposal and both agreed that the researcher could conduct their research using offenders at the institutions. The prisons were selected due to the researcher’s University having strong research links with the prisons which allowed for successful communication to facilitate the research.

The first prison was a Category B prison housing adult male offenders (aged 21 and over). The second prison was an adult male Category C prison holding vulnerable offenders who are mainly are incarcerated for sexual offences (sex offenders made up the sample from this prison in the current studies).

The inclusion criteria for offenders to take part in the current studies was being an incarcerated adult male offender at one of the two selected prisons who had been invited to take part in the ETS programme within a designated time-frame. Offenders at the first prison who were due to attend the ETS treatment programme between January and
December 2008 were invited to take part in the study. Offenders at the second prison who were due to attend ETS between March and November 2008 were invited to take part in the study. Offenders who had previously completed the PACI-O (or a predecessor such as the PCI-OA; Sellen et al., 2006, 2009) were excluded.

Results from the two prison populations were amalgamated for chapter 4 of this thesis in order to test the psychometrics of the PACI-O However, they were also examined separately in some studies as it is likely that differences exist between the populations that could bias the results and mask any true effects. The samples are examined together and separately in chapter 6 (which looks at the potential of the PACI-O to be a measure or assessment of offender treatment motivation) and chapter 7 (which through a RCT design assesses the potential of the PACI-O to be a pre-treatment motivation enhancer).

All participants were assigned an identification number by the researcher so they could be tracked through the process. Due to time restraints, the PACI-O data from 102 offenders (who took part in the RCT) were used to varying degrees for all of the studies in this thesis (with the exception of the pilot study which used a separate cohort of offenders). Additionally, 11 ‘ad-hoc’ offenders off the prison wing were interviewed with the PACI-O to boost numbers for the factor analysis reported in chapter 4. These 11 offenders are not included in the RCT studies. Details of participant numbers for each study are given in the relevant chapters.

The procedure involved a semi-structured interview with each of the offenders in the sample (and the experimental group were interviewed twice for follow-up purposes) to collect all the measures used in this thesis. The materials for each of the studies is documented and described in each relevant chapter. The procedure for the PACI-O interviews is detailed below and is applicable to all the studies in the thesis.
3.3.1 The inclusion of a sex offending population

Sexual offending has a destructive physical and psychological impact on both individuals and their friends and family (Marshall et al., 1999), thus rehabilitation of sexual offenders is paramount. The inclusion of sex offenders in the current study was appropriate for a number of reasons. Sex offenders are one of the most difficult groups of offenders in terms of treatment and supervision in the community (Stalans, 2004). They are often seen as a population that engage in manipulative behaviour who develop intricate strategies for accessing victims in a deliberate well-controlled manner (Marshall et al., 1999). Hence methods need to be sought to maximise treatment effectiveness in order to reduce the risks of sexual offenders on release. Sexual offenders are generally viewed as an unmotivated portion of the prison population (Garland & Dougher, 1991); however, motivation is needed to engage in a treatment programme and change (McMurran, 2004). Barrett et al. (2003) state improving programme design and delivery so that it boosts motivation levels may lead to a reduction of victims of both sexual and nonsexual crimes.

Cognitive-Behavioural Treatments (CBT) through group work is generally seen as an appropriate and effective way of delivering sex offender treatments (Stalans, 2004). Evaluative studies suggest CBT can contain or control sexual offending behaviour (Thomas, 2005). Looman, Dickie, and Abracen (2005) concluded that as a result of three recent meta-analyses, current methods of sexual offender treatment can lead to significant reductions in both sexual and general recidivism. Hanson et al., (2002) conducted a meta-analysis summarising data from 43 studies looking at the effectiveness of psychological treatment for sex offenders and also confirmed that CBT was associated with reductions in both sexual and general recidivism.

However, sex offender treatment cannot be all things to all offenders, and providing specialised treatment to certain problem areas or certain types of offenders may be
beneficial (Beyko & Wong, 2005). Shaw, Herkov and Greer (1995) noted that out of 144 sexual offenders deemed motivated for treatment, only 16 completed with a good prognosis. Looman et al. suggests that for this reason we should look at other responsivity factors before treatment commencement. Lee et al. (1996) reduced the drop-out rates of sex offenders in treatment by enhancing offenders’ motivation for treatment via providing individual treatment before attending group treatment (in order to get the offenders to accept they needed to work on their problems). Thus, an intervention like the PACI-O which focuses on personal goals may be of use as a treatment motivation enhancer with such a population. A predecessor of the PACIO, the PCI-OA (TR) (Theodosi & McMurray, 2006), has already demonstrated its potential as a motivation enhancer by encouraging sex offenders to make positive motivational shifts and seek information on treatment programmes.

A variety of methods have been employed to assess motivation of sex offenders; however empirical evidence evaluating their efficacy is limited (Tierney & McCabe, 2002). It has been suggested that static one-dimensional motivational assessments are unlikely to accurately reflect the complex nature of motivation for behaviour change. Hence the PACI-O may have potential to measure motivation in sex offenders as it is not a static and one-dimensional tool.

Hanson et al., (2002) suggest that sexual offender treatment does reduce recidivism, however they say to be conclusive, further “better” research is needed to confirm that these results were not produced by unintended consequences of research designs. Most sex offender studies attempt to match groups on risk-related variables, rather than random assignment when attempting to create equivalent groups (Hanson et al., 2002). Therefore, the current RCT may be helpful in order to study sexual offender motivation, treatment and change through a rigorous design.
3.4 Demographics of the RCT offending sample

The demographic details of the offenders in the sample are shown below in Table 8. The information was collated from the prison computer system (as this was deemed more reliable than asking the offenders) and missing data arose from incomplete system information.

| Table 8. The demographic information regarding age and convictions for the sample |
|-------------------------------------|-----|-------------|-----|-----|
| N (excluding missing cases) | Mean | Standard deviation | Minimum | Maximum |
| Age | 97 | 34.08 | 10.12 | 22.00 | 66.00 |
| Number of convictions over 18 | 83 | 10.13 | 10.90 | 1.00 | 48.00 |
| Number of convictions under 18 | 83 | 3.26 | 6.03 | .00 | 30.00 |
| Age at first conviction | 82 | 21.25 | 10.39 | 10.00 | 54.00 |

The majority of the sample were single (63.7%), 12.7% were married and 23.5% were classified as 'other'. The vast majority classed themselves as white British (89.2%) and 10.8% were classed as ‘other’.

The majority of offenders in the sample had a violent index offence (28.4%), however sexual offences against a child were also common (17.9%). Table 9 below details the index offences of the offenders in the RCT sample.
Table 9. Index offences for the sample

<table>
<thead>
<tr>
<th>Violent</th>
<th>Acquisitive</th>
<th>Drug Offences</th>
<th>Driving Offences</th>
<th>Other Non-Sexual Offences</th>
<th>Sexual Assault</th>
<th>Rape</th>
<th>Sexual Offence Against A Child</th>
<th>Other Sexual Offence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>28.4</td>
<td>17.9</td>
<td>7.4</td>
<td>1.1</td>
<td>6.3</td>
<td>4.2</td>
<td>10.5</td>
<td>17.9</td>
</tr>
<tr>
<td>age</td>
<td>3.4.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.4.1 Procedure

The study was approved by the University Ethics panel and the Prison Governor at both prison sites prior to commencement of the study. Offenders were individually approached by the researcher(s) on the wing in the week preceding treatment commencement in a standardised way. Offenders were informed by the accompanying treatment manager/tutor that following the interviews for ETS they have been selected to start the treatment programme the following week. The researcher(s) immediately introduced themselves and asked whether they would be interested in taking part in a study regarding their goals and motivation. Offenders were told they would be interviewed either before or after ETS. They were then handed a letter with a time and date for their interview with the PACI-O (offenders were also reminded of their PACI-O interview via letter the day before it was due to take place). They were verbally told they could withdraw from the study at any time, and more details of the study would be explained to them before the interview was to take place. Participants were informed that participating in the study would have no affect on any decisions made about them.

3.4.1.1 Administering the PACI-O to the experimental group before treatment

Participants were interviewed individually in the resettlement area of each prison in the week preceding the start of the treatment programme. Classrooms were private and quiet with only the participant and researcher present. Each offender had the opportunity to go through the information sheet with the researcher to clarify points and ask questions
regarding the study. Issues of confidentiality were verbally reiterated for clarification. A consent form was passed to the offender and explained. Once happy to take part the participant signed the consent form. Information on some demographic details were taken from offenders, however the researcher later verified and took additional information from the prison computer system (with the offender’s consent).

Next, the instructions for the PACI-O were read aloud by the interviewer and the nature of Aspirations and Concerns explained fully as positive things that the prisoner may want to get, achieve or obtain or negative things that the prisoner may want to stop, avoid or ‘escape’. Once the participant understood what was required of them and they were happy to take part, the interviewer read through each PACI-O life area and handed them the corresponding life area sheet. Each life area was visited in turn and the interviewer noted any Concerns or Aspirations the participant voiced as well as how they would like things to transpire. If the participant had no Concerns or Aspirations in one area, the interviewer moved on to the next area. Finally, the researcher read aloud questions from the subjective well-being scales and offenders told the researcher their answer who took a note of their response. Interviews took between 20 minutes and 1 hour 20 minutes to complete. Each offender was asked if they would return following completion of ETS to repeat the interview. All said yes at the time of interview. Offenders started the ETS programme within a week of this interview taking place.

3.4.1.2 Administering the PACI-O interview to the experimental group following treatment

Offenders in the experimental group were invited back for a second interview in the two weeks following ETS completion. Participants were interviewed individually in the resettlement area of each prison. The above procedure was repeated. However, this time offenders also completed a prisoner adapted version of the STEQ, the Prisoner Treatment Engagement Questionnaire (PTEQ; appendix 14 and reported in chapter 5) to assess how
well they believed they engaged in the treatment programme. Interviews took between 15 minutes and 1 hour 30 minutes to complete.

3.4.1.3 Administering the PACIO interview to the control group following treatment

The procedure for interviewing offenders in section 3.4.1 was repeated with the offenders in the control group following completion of ETS. Offenders also completed the PTEQ to assess how well they believed they engaged in the treatment programme.

3.5 Offenders’ Life Goals

Below is a description of how offenders rate their life goals in the various PACI-O life areas (see appendix 6 or chapter 2 for the PACI-O Life Areas). Table 10 displays the number of goals stated in each Life Area and by how many offenders.

<table>
<thead>
<tr>
<th>Life Area</th>
<th>Number of Goals (by number of offenders)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Past, Current, and Future Living Arrangements</td>
<td>72 (72)</td>
</tr>
<tr>
<td>2. Close Personal Relationships</td>
<td>70 (64)</td>
</tr>
<tr>
<td>3. Physical or Mental Health Issues</td>
<td>46 (46)</td>
</tr>
<tr>
<td>4. Recreation</td>
<td>51 (51)</td>
</tr>
<tr>
<td>5. Self-Changes and Personal Improvement</td>
<td>54 (54)</td>
</tr>
<tr>
<td>7. Other</td>
<td>7 (7)</td>
</tr>
</tbody>
</table>

Table 10 shows that goals were expressed in all six areas as well as 7 goals coming under the area of ‘other’. Most goals were expressed in the area of employment, training and financial situation (81). The life area that elicited the least number of goals was
physical or mental health issues (excluding the area of ‘other’) with 46 goals stated.

The top six life areas were endorsed by between 46 and 79 offenders in the RCT sample.

Few (7) felt the need to identify goals in the life area of ‘other’.

Figure 7 and 8 below details how offenders rated their goals in each of the PACI-O life areas.

*Figure 7. Offender ratings in the areas of living, relationships and health.*

*Figure 8. Offender ratings in the areas of recreation, self-changes and employment*
Goals in the area of Employment, Training, and Financial Situation had the highest mean importance rating (9.59, SD_0.89). Goals in the area of Recreation had the lowest mean importance rating (8.37, SD_2.17). Offenders felt that they were most likely to achieve goals in the area of Recreation (8.41, SD_2.06). Goals in the area of Past, Current, and Future Living Arrangements were rated lowest in terms likelihood of goal achievement (7.63, SD_2.32). In this sample, offenders feel most in control of achieving goals in the area of Recreation (8.84, SD_1.84). However, offenders felt least in control of achieving goals in the area of Past, Current, and Future Living Arrangements (6.73, SD_3.19). The area of Recreation goals had the highest mean knowing what to do rating (9.33, SD_1.33) whereas the area of Past, Current, and Future Living Arrangements elicited the lowest mean score for knowing what to do to achieve goals (7.76, SD_2.29). Offenders stated that achieving goals in the area of Close Personal Relationships would bring the most happiness (9.71, SD_0.90), whereas achieving goals in the area of Physical or Mental Health Issues was rated lowest (9.43, SD_1.22). Goals in the area of Past, Current, and Future Living Arrangements elicited the highest mean commitment score (9.56, SD_1.16). Goals in the area of Recreation had the lowest mean commitment score (8.92, SD_1.71).

Figure 9 below shows of those offenders who endorsed each area, the percentage of offenders who felt prison helped, interfered or was neutral in aiding their goal achievement.
Figure 9 shows that the majority (55%) of offenders felt that the experience of being in prison can help them to achieve their goals in the area of self-changes. Offenders in the current sample felt that prison would interfere most with their goals in the area of living past, current and future arrangements (48%) and close personal relationships (51%).

Figure 10 below details how offenders in the current sample view re-offending impacting on their current life goals.
Figure 10 shows that future re-offending is viewed as interfering with goals in all life areas. It is viewed as interfering least by the most offenders in the life area of recreation (only 74% of offender’s believe that it will interfere). Re-offending was viewed as helping most in the area of recreation (8%).
### 3.5.1 The When rating scale

Table 11 displays whether goals in each life were rated as achievable in the short, intermediate or long-term.

<table>
<thead>
<tr>
<th>Life Area</th>
<th>Number of goals achievable in the short-term</th>
<th>Number of goals achievable in the intermediate future</th>
<th>Number of goals achievable in the long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past, Current &amp; Future Living Arrangements</td>
<td>18</td>
<td>17</td>
<td>33</td>
</tr>
<tr>
<td>Close Personal Relationships</td>
<td>23</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>Physical or Mental Health Issues</td>
<td>19</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Recreation</td>
<td>23</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Self-Changes &amp; Personal Improvement</td>
<td>15</td>
<td>6</td>
<td>28</td>
</tr>
<tr>
<td>Employment, Training &amp; Financial Situation</td>
<td>22</td>
<td>23</td>
<td>32</td>
</tr>
</tbody>
</table>

From the results in Table 11 it is apparent that offenders feel goals in any area can be achieved in the short, intermediate or long-term. The majority of the goals in the area of past, current & future living arrangements were seen as long-term goals and those in recreation as short-term.
3.5.2 Can I achieve this goal in prison?

On the whole, offenders feel that they are unable to achieve goals concerning past, current & future living arrangements in prison (table 12 below). The majority of goals in the area of close personal relationships were deemed unachievable in prison, also. The majority of goals in the area of self-changes & personal improvement and physical or mental health issues were seen as achievable in prison.

<table>
<thead>
<tr>
<th>Life Area</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past, Current &amp; Future Living Arrangements</td>
<td>19</td>
<td>50</td>
</tr>
<tr>
<td>Close Personal Relationships</td>
<td>28</td>
<td>42</td>
</tr>
<tr>
<td>Physical or Mental Health Issues</td>
<td>32</td>
<td>12</td>
</tr>
<tr>
<td>Recreation</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td>Self-Change &amp; Personal Improvement</td>
<td>36</td>
<td>16</td>
</tr>
<tr>
<td>Employment, Training &amp; Financial Situation</td>
<td>34</td>
<td>46</td>
</tr>
</tbody>
</table>
Chapter 4 – The Construct Validity and Internal Reliability of the Personal Aspirations and Concerns Inventory – for Offenders

Summary

A measure of offender motivation may be useful for selection and as an assessment of progression on a treatment programme. However, it is imperative that the measure be valid and reliable. This chapter assesses the structural and psychometric qualities of the newly adapted Personal Aspirations and Concerns Inventory – for Offenders (PACI-O). A Principal Components Analysis (PCA) was conducted using the data from 113 PACI-O interviews with adult male offenders. The results confirm that, like the PACI-O’s predecessor the PCI-OA (Sellen, McMurran, Cox, Theodosi & Klinger, 2006; Sellen, McMurran, Theodosi, Cox & Klinger, 2009), the PACI-O yielded a 3 factor solution. Factor 1 was named ‘adaptive motivation’ due to its similarity to the factor reported in previous studies with both offenders and other populations (e.g., Cox, Pothos, & Hosier, in prep; Hosier, 2002; Hosier & Cox 2002; Sellen et al., 2009). Factor 2 represented a variation of maladaptive motivation which was named ‘learned helplessness/powerlessness’. Factor 3 was named ‘lack of direction’ due to its similarity to the Lack of Direction factor reported by Sellen et al. (2009).

Cronbach’s Alpha revealed that the most internally reliable version of the PACI-O for measurement is the PACI-O items with the ‘prison and re-offending’ rating scales omitted. However, these scales appear to add additional information, therefore ways should be sought to improve their psychometric robustness. With the prison and reoffending scales included in analysis, only adaptive motivation (alpha = 0.67) proved to be close to the 0.70 acceptable cut off alpha level (Kline, 1993, 2000) and appropriate for reliable
measurement at present. Future research and implications regarding the use of the PACI-O in practice are discussed.

4. Introduction

Evidence presented in chapter 2 suggested that the Personal Concerns Inventory – for Offenders (PACI-O) shows potential as an assessment of offender motivation. However, only testing its psychometric properties will confirm whether it is a valid and reliable instrument. Chapter 1 highlighted the need for valid and reliable measures and enhancers of offender motivation in order to guide pre-treatment selection and help maintain motivation to support behaviour change. The interest in motivating patients to engage in treatment has increased in recent years; however, there still exists a lack of psychometrically robust instruments capable of measuring factors conceptually related to motivation in offenders (Drieschner & Boomsma, 2008; Gudjonsson, Young & Yates, 2007; Sellen et al., 2009).

An offender’s level of motivation is typically determined by self-report and their response is then taken as legitimate. Although this method has its uses, such measures have been labelled transparent and superficial (e.g. McMurran, 2004). Another method of assessing offender motivation is to ask members of staff. However, McMurran, Theodosi, and Sellen (2006) note that staff may not be able to accurately and precisely assess an offender’s intra-personal state accurately.

Motivation for change is often measured using the University of Rhode Island Change Assessment (URICA; McConnaughy, Prochaska, & Velicer, 1983; McConnaughy, DiClemente, Prochaska, & Velicer, 1989); however, there are concerns over its applicability with offenders. Recently there have been a number of other measures of offender motivation for treatment (e.g., Drieschner & Boomsma, 2008; Gudjonsson et al.,
2007. See chapter 1 for details), however these have been validated on outpatients or on mentally disordered offenders therefore further studies of their validity in other offending populations are required.

The wider notion of ‘readiness to change’ has given rise to the development of a number of measures that examine some of the internal components of ‘readiness’ to engage in a treatment programme and change. One such measure is the Corrections Victoria Treatment Readiness Questionnaire (CVTRQ; Casey, Day, Howells, & Ward, 2007) which shows potential to predict which offenders are most likely to engage in treatment and which require pre-treatment readiness interventions before commencement of a programme. However, the CVTRQ may not be able to fully gauge volitional aspects of an offender’s readiness. Within the Multifactor Offender Readiness Model (MORM; Ward, Day, Howells & Birgden, 2004), motivation refers to a cluster of variables that make up a component of readiness (volition). Thus, additional assessments of offender goals and motivation may be required to fully understand the internal determinants of treatment readiness.

Chapter 2 introduced a means of assessing offender motivation for treatment based on a goal-pursuit perspective: The Personal Concerns Inventory-Offender Adaptation (PCI-OA; Sellen et al., 2006; Sellen et al., 2009. Described in detail in chapter 1) and chapter 2 details the amendments made to develop it into the Personal Aspirations and Concerns Inventory- for Offenders (PACI-O). A pilot study with 22 adult male offenders confirmed the PACI-O is applicable with an offending population (chapter 2). Therefore, the next step in the development of the PACI-O will be assessing its reliability and validity. The PACI-O has undergone a number of amendments and developments since the PCI-OA, so it was imperative to explore the structural and psychometric properties to assess if this tool could be a reliable and valid measure of offender motivation.
The PCI-OA was adapted for offenders from work in the addictions field, namely the Personal Concerns Inventory (PCI; Cox & Klinger, 2004b). The PCI can identify adaptive and maladaptive motivation profiles in problem drinkers (Klinger & Cox, 2004b). Adaptive motivation profiles are marked by feelings of high likelihood of goal achievement, expected happiness at goal attainment and high commitment towards goals; whereas maladaptive motivation is characterised by seeing goals as unimportant, expecting little happiness from goals and lacking commitment to achieving them (Sellen et al., 2009). A further study with adult male offenders on the PCI-OA’s validity confirmed that the PCI-OA’s structure resembles that of the PCI (Sellen et al., 2009). However the PCI-OA, as well as identifying adaptive and maladaptive motivation profiles, elicited a third factor – the Lack of Direction (LOD) factor. Preliminary investigations suggest that offenders who score high on the LOD factor may be at an early stage of contemplating change but may lack the knowledge on how to achieve goals (Sellen et al., 2009). However, this factor lacked psychometric robustness; therefore caution should be warranted until future work has been conducted.

Sellen et al. noted that the PCI-OA could benefit from a number of amendments to maximise its potential with offenders. These include working on the ‘prison’ and ‘reoffending’ rating scales to aid clarity. Offenders often had trouble distinguishing the subtle difference between the impact of being in prison and future reoffending behaviour on goals. The instability of these scales in Sellen et al.’s study resulted in two of the four prison and re-offending rating scales being dropped from analysis. The authors concluded that omitting the prison and reoffending scales from analysis and using only the items that were common to both the PCI-OA and PCI resulted in a measurement instrument with better psychometric properties (Sellen et al., 2009). Yet they noted the importance of measuring the impact of the criminal justice system and offending behaviour on goal
attainment. They concluded that the PCI-OA may be a helpful tool in practice, albeit in a different format than currently used.

A valid measure is one that measures what it claims to measure, and a reliable measure refers to an instrument that will produce a consistent score from one occasion to another (Clark-Carter, 1997). It is imperative to ascertain the reliability and validity of a measure before it is used practically (Kline, 1993). However, measuring a dynamic construct like motivation may be difficult due to its fluid and changeable nature (Klinger & Cox, 2004b). Despite this, Klinger & Cox, (2004b) have reported adequate reliability and validity for the PCI, and Sellen et al. (2009) established reasonable psychometrics for the PCI-OA (more so when the items relation to prison and offending behaviour were removed).

There are various types of validity, one of which is construct validity. A construct is a postulated attribute of people that is assumed to be reflected in test performance (Cronbach & Meehl, 1955). Construct validity is often explored with factor analysis. Both the external and internal reliability of a measure can be explored during psychometric testing. Internal validity is the consistency of the set of items to each other (Kline, 1993) and is often measured using Cronbach’s Alpha.

The aim of the current study was to assess aspects of the PACI-O’s psychometric properties. Comparisons will be made between the factor structure of the PACI-O and its predecessors the PCI-OA and PCI. This investigation aims to provide construct validity for the PACI-O and confirm its applicability with an offending population. Additionally, the internal reliability of the PACI-O will be tested to judge if, like the PCI-OA, the use of the PCI scales only results in a more reliable measure of motivation, or whether the changes made to the PACI-O mean the prison and re-offending scales can be included in analysis and result in a reliable and valid measure of offender motivation.
4.1 Method

Participants: Participants were 113 adult male offenders housed at a category B and C prison (the offenders from the category C prison were a sex offending sample) in the UK. The offenders (with the exception of 11 offenders who were recruited off the category B prison wing for the purpose of increasing data for factor analysis) were part of a larger study exploring the potential, and any short-comings, of the PACI-O with the use of Randomised Controlled Trial (RCT). Chapter 3 details the sample characteristics and method of the RCT. All offenders (with the exception of the 11 ad-hoc offenders from the wing) were recruited to attend the prison-based Enhanced Thinking Skills treatment programme.

The mean age for the 113 offenders in the current study was 34.01 (SD=9.84). The majority of the sample were white British (89%) and the other 11% were classed as ‘other’ (due to the numbers being too small to meaningfully classify other nationalities). Most of the sample were single (65.5%), 12% were married and 23% were classed as ‘other’ (divorced, separated or widowed). Many offenders in the sample had violent index offence (34.9%), although acquisitive offences were also common (17%) as were sexual offences against a child (16%).

Materials: The Personal Aspirations and Concerns Inventory - for Offenders (PACI-O). See chapter 2 and appendix 6 for details.

Procedure: The study was approved by the University’s ethics panel and Prison Governor at both prison sites where the study took place. Participants were approached individually on the prison wings and asked whether they would like to take part in a study regarding their life goals and motivation. Participants were interviewed individually in the resettlement area of each prison. Classrooms were private and quiet with just the
participant and interviewer present. Each prisoner had the opportunity to go through
the information sheet with the interviewer to clarify points and ask questions regarding the
study. Issues of confidentiality were given verbally. The instructions were read aloud by
the interviewer and the nature of aspirations and concerns explained fully as positive things
that the prisoner may want to get, achieve or obtain or negative things that the prisoner
may want to stop, avoid or ‘escape’. Once the participant understood what was required of
them and they were happy to take part, the interviewer read through each life area and
handed them the corresponding life area sheet. Each life area was dealt with in turn and the
interviewer noted any concerns or aspirations the participant voiced as well as the
offenders goal to achieve or avoid the noted concern or aspiration. If the participant had no
concerns or aspirations in one area, the interviewer moved on to the next area. Interviews
took between 20 minutes and 1 hour 20 minutes to complete.

**Method of Analysis:** Construct validity was examined through exploratory principal
component analysis (PCA). Due to the problems experienced during analysis with the PCI-
OA (Sellen et al., 2009), as discussed earlier, confirmatory factor analysis was deemed
inappropriate. As noted, the PCI-OA yielded a 3 factor structure, however due to the
instability of the prison and offending rating scales it was deemed inappropriate in the
current study to assume these scales would again load positively onto adaptive motivation.
The new formatted scales should be allowed to load naturally rather than a preconceived
structure being imposed on the data. A minimum requirement of confirmatory factor
analysis is that hypotheses are made beforehand regarding the number of factors in the
model, but also the researcher can specify expectations about which variables will load on
which factors (Kim & Mueller, 1978). In the current study, there was uncertainty regarding
the number of factors that would emerge and what rating scales would load onto them,
given the changes. Therefore, an exploratory PCA of the PACI-O was conducted.
PCA aims to reduce the dimensionality of a data set consisting of a number of interrelated variables while maintaining as much variation as possible in the data set (Jolliffe, 2002). Consistent with Sellen et al. (2009), two PCAs were conducted, the first containing the PACI-O rating scales that were also common to the PCI (all scales bar prison and re-offending) to ensure that the PACI-O data was comparable to that of the original instrument. This helped confirm that the PACI-O is suitable for assessing motivation with offenders. Additionally, it helped assess if the PACI-O can measure motivation regardless of the target problem behaviour. The second PCA aimed to establish the factorial validity of the PACI-O and contained all eight rating scales including the prison and re-offending rating scales. To explore the internal consistency of the PACI-O, Cronbach’s Alpha was calculated for the PCI only scales, the whole of the PACI-O and finally for each of the emerging PACI-O factors.

Attempts were originally made to assess test-retest reliability with the participants in the control condition of the RCT; however, this was abandoned after six months due to low participant numbers caused by the high turnover of offenders following completion of the ETS programme. The predictive validity of the PACI-O is explored in chapter 6 of this thesis.
4.2 Results

4.2.1 The structural properties of the PACI-O. Assessing construct validity with principal component analysis (PCA)

The first analysis was a PCA with the prison and re-offending scales omitted. The mean scores on six rating scales (importance, likelihood, control, achievability, happiness, and commitment) from all participants (n=113) were included in the analysis.

The second PCA included the prison and reoffending rating scales. The mean score on eight rating scales (importance, likelihood, control, achievability, happiness, commitment, prison affects, reoffending affects) from all participants (n=113) were included in the analysis. However, the decision was made to delete cases listwise as excluding cases pairwise during factor analysis can result in erratic estimates (Field, 2005). This decision resulted in a reduced sample of 101 participants.

4.2.2 Factor structure of the PACI-O's predecessors the PCI & PCI-OA

Below are tables detailing the factor structure of previous exploratory analyses with the PCI and PCI-OA. Slightly different factor structures of the PCI scales have been apparent in previous studies. Factor 1 (named as ‘adaptive motivation’ in both the below studies in table 13) tends to be most robust across studies, with more variability seen in factor 2 (named in both the studies in table 13 as ‘maladaptive motivation’; Klinger & Cox, 2004b)
### Table 13. Factor structure of the PCI scales taken from (and amended) Klinger & Cox (2004b)

<table>
<thead>
<tr>
<th></th>
<th>Study A</th>
<th></th>
<th>Study B</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor 1</td>
<td>Factor 2</td>
<td>Factor 1</td>
<td>Factor 2</td>
</tr>
<tr>
<td>Commitment</td>
<td>0.69</td>
<td>-0.48</td>
<td>0.89</td>
<td></td>
</tr>
<tr>
<td>Happiness at anticipated success</td>
<td>0.45</td>
<td>-0.76</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>Chances of success (Likelihood)</td>
<td>0.74</td>
<td></td>
<td>0.72</td>
<td>-0.38</td>
</tr>
<tr>
<td>Importance</td>
<td>0.39</td>
<td>-0.69</td>
<td>0.86</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>0.59</td>
<td>0.55</td>
<td>0.35</td>
<td>-0.73</td>
</tr>
<tr>
<td>Knowledge (What to do)</td>
<td>0.71</td>
<td>0.40</td>
<td>0.36</td>
<td>-0.61</td>
</tr>
<tr>
<td>Unhappiness</td>
<td></td>
<td>0.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance from goal attainment</td>
<td>-0.55</td>
<td></td>
<td></td>
<td>0.48</td>
</tr>
<tr>
<td>Alcohol interference with goal attainment</td>
<td></td>
<td></td>
<td>0.43</td>
<td></td>
</tr>
<tr>
<td>Alcohol help with goal attainment</td>
<td></td>
<td></td>
<td></td>
<td>0.54</td>
</tr>
</tbody>
</table>

*Loadings > 0.35 shown

Component A – Cox, Pathos & Hosier (in preparation). N=94. Unrotated PCA.

Component B – Hosier (2002) and Hosier & Cox (2002). N=111 pca with Oblimin rotation. This PCI version limited participants to their most important goal in each of 5 areas. amended from book personal connos Hosier, July 2009

Table 14 and 15 overleaf shows the factor structure of the PCI only scales and the PCI-OA scales in Sellen et al.’s (2009) study.
Table 14. Factor structure of the PCI-OA (excluding offending/prison specific indices) in Sellen et al.’s 2009 study.

<table>
<thead>
<tr>
<th>Index</th>
<th>Factor 1 – Adaptive Motivation</th>
<th>Factor 2 – Maladaptive Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>0.77</td>
<td>-0.46</td>
</tr>
<tr>
<td>Happiness</td>
<td>0.71</td>
<td>0.55</td>
</tr>
<tr>
<td>Likelihood</td>
<td>0.69</td>
<td>0.36</td>
</tr>
<tr>
<td>Achievability</td>
<td>0.58</td>
<td></td>
</tr>
<tr>
<td>Importance</td>
<td>0.56</td>
<td>-0.62</td>
</tr>
<tr>
<td>Control</td>
<td>0.46</td>
<td>0.79</td>
</tr>
<tr>
<td>Unhappiness</td>
<td>-0.52</td>
<td>0.37</td>
</tr>
</tbody>
</table>

Table 15. Factor Structure of the PCI-OA scales (loadings >0.30 shown)

<table>
<thead>
<tr>
<th>Index</th>
<th>Factor 1 – Adaptive Motivation</th>
<th>Factor 2 – Maladaptive Motivation</th>
<th>Factor 3 – Lack of Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>0.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood</td>
<td>0.70</td>
<td>0.53</td>
<td></td>
</tr>
<tr>
<td>Happiness</td>
<td>0.65</td>
<td>-0.49</td>
<td></td>
</tr>
<tr>
<td>Importance</td>
<td>0.58</td>
<td>-0.61</td>
<td></td>
</tr>
<tr>
<td>Prison helps</td>
<td>0.56</td>
<td></td>
<td>0.61</td>
</tr>
<tr>
<td>Control</td>
<td>0.51</td>
<td>0.77</td>
<td></td>
</tr>
<tr>
<td>Offending helps</td>
<td>0.48</td>
<td></td>
<td>0.55</td>
</tr>
<tr>
<td>What to do</td>
<td>0.46</td>
<td></td>
<td>-0.66</td>
</tr>
<tr>
<td>Unhappiness</td>
<td>-0.45</td>
<td>0.42</td>
<td>0.42</td>
</tr>
</tbody>
</table>

4.2.3 PACI-O analysis – PCI scales only for the current sample

The PCA was unrotated (rotating the factors did not aid clarity) and loadings above 0.3 were reported. Results were also determined by examining the scree plot and adhering to the >1.0 eigenvalue criterion (figure 11.). Measures of sampling adequacy indicated that the included indices were appropriate for factor analysis (Bartlett’s Test of Sphericity $\chi^2 = 179.59$, $p < .0001$; Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.72). All individual scales met the requirement for sampling adequacy.
It was discovered that two factors explained 67% of the variance. Loadings above 0.3 are retained and shown overleaf in table in table 16.
Table 16. The factor structure of the PACI-O with the prison and reoffending scales omitted

<table>
<thead>
<tr>
<th>Index</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance</td>
<td>.596</td>
<td>.609</td>
</tr>
<tr>
<td>Likelihood</td>
<td>.777</td>
<td>-.317</td>
</tr>
<tr>
<td>Control</td>
<td>.676</td>
<td>-.563</td>
</tr>
<tr>
<td>What to do (knowledge)</td>
<td>.727</td>
<td>-.414</td>
</tr>
<tr>
<td>Happiness</td>
<td>.579</td>
<td>.481</td>
</tr>
<tr>
<td>Commitment</td>
<td>.564</td>
<td>.508</td>
</tr>
</tbody>
</table>

The factors that positively loaded onto factor 1 (6 scales) in descending order of magnitude are likelihood, knowledge, control, importance, happiness and commitment. This factor explained 43% of the variance.

Factor 1 is similar to adaptive motivation seen both in studies with the PCI (Cox et al. in preparation; Hosier 2002; Hosier & Cox, 2002; table 13) and with the PCI-OA (Sellen et al., 2009; table 14 & 15).

The factors that load positively onto factor 2 (3 scales) in descending order of magnitude are importance, commitment, and happiness. The factors that load negatively onto factor 2 (3 scales) are control, knowledge & likelihood.

Factor 2 does not resemble factor 2 of the maladaptive motivation factor seen in the PCI-OA (Sellen et al., 2009) or in the Cox et al. (in preparation) PCI study. However, the negative loadings on the ‘likelihood’, ‘control’ and ‘what to do’ scales are consistent with maladaptive motivation seen in the Hosier study. However, in the Hosier study the positive
loading on ‘importance’, ‘happiness’ and ‘commitment’ were not present as they are here. This could be due to Hosier’s decision to rotate. Hosier’s study limited participants to name goals in five areas only. Therefore, this abridgement may explain the similarities seen with the PACI-O (which itself is an abridged PCI-OA) and the differences compared to the other studies (Cox et al.; Sellen et al.) that used ‘full’ versions of the instruments. The maladaptive motivation factor has found to be variable across studies, therefore the differences witnessed here do not invalidate the use of the PACI-O with offenders.

4.2.4 PCA – PACI-O scales

The previous PCA was important to assess the PACI-O’s potential for measuring motivation irrespective of the target problem behaviour (offending). However, it is also important to assess whether the amendments to the ‘prison/reoffending help/interfere’ scales mean the PACI-O can be a valid reliable measurement instrument. The inclusion of the prison and reoffending scales may give an insight into offender motivation, and their inclusion makes the instrument offender specific in terms of face validity at least.

As with previous studies with the PCI-OA, the factor structure was unrotated and loadings above 0.3 were reported. Results were also determined by examining the scree plot and adhering to the >1.0 eigenvalue criterion (figure 12). The PCA included all eight of the rating scales that were suitable for factor analysis (the ‘when’ and ‘achieve in prison’ scales were omitted as they were categorical). The reoffending scale was reversed before analysis so that, in-line with the other PACI-O rating scales, a high score represented a positive trait (seeing reoffending as interfering with goals). Measures of sampling adequacy indicated that the included indices were appropriate for factor analysis (Bartlett’s Test of Sphericity $\chi^2 = 193.47$, $p < .0001$; Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.72). All individual scales met the requirement for sampling adequacy.
It was discovered that three factors explained 68% of the variance. Loadings above 0.30 are retained and shown overleaf in table 17.
Table 17. The factor structure of the PACI-O (including the prison and reoffending scales)

<table>
<thead>
<tr>
<th>Index</th>
<th>Factor 1: Adaptive Motivation</th>
<th>Factor 2: Learned Helplessness/Powerlessness</th>
<th>Factor 3: Lack of Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance</td>
<td>.631</td>
<td>.483</td>
<td>.377</td>
</tr>
<tr>
<td>Likelihood</td>
<td>.745</td>
<td>-.353</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>.633</td>
<td>-.546</td>
<td></td>
</tr>
<tr>
<td>What to do</td>
<td>.722</td>
<td></td>
<td>-.338</td>
</tr>
<tr>
<td>Happiness</td>
<td>.633</td>
<td>.439</td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>.583</td>
<td>.480</td>
<td></td>
</tr>
<tr>
<td>Prison affects</td>
<td>.370</td>
<td>-.404</td>
<td>.663</td>
</tr>
<tr>
<td>Reoffending affects</td>
<td></td>
<td>.549</td>
<td>-.494</td>
</tr>
</tbody>
</table>

4.2.5 Factor 1 – Adaptive Motivation

The factors that positively loaded onto factor 1 (7 scales) in descending order of magnitude are likelihood, knowledge, control, happiness, importance, commitment and prison helps. This factor explained 35% of the variance.

The similarities of component 1 of the PACI-O to factor 1 (adaptive motivation) seen in studies with the PCI (Cox et al.; Hosier 2002; Hosier & Cox, 2002) and PCI-OA (Sellen et al., 2009) means it will be named adaptive motivation.

4.2.6 Factor 2 – Learned Helplessness/Powerlessness

The factors that load positively onto factor 2 (4 scales) in descending order of magnitude are reoffending interferes, commitment, importance, and happiness. The factors that load negatively onto factor 2 (3 scales) are, control, prison helps and likelihood. This factor explains 20% of the variance. As with the previous PCA with the PCI scales only, this factor was most similar to maladaptive motivation seen in the Hosier study. This factor
is characterised by high feelings of importance, commitment and happiness, and an understanding that offending interferes but also believing that goals are unlikely to be realised, a feeling of lack of control and that prison will interfere with goal achievement.

Maladaptive motivation is characterised by an absence (or negative loading) of some of the value and expectancy components of adaptive motivation (Klinger & Cox, 2004b). Therefore, this factor could be named maladaptive motivation. However, the factor resembles aspects of the constructs ‘learned helplessness’ or ‘powerlessness’. Offenders who score high on this factor feel that despite having the desire to achieve important life goals they lack the control and the belief (negative loadings on the likelihood rating scale) that they can make it happen.

Feelings of helplessness and powerlessness are common in prison populations (Silberman, 1995), therefore the factor was named ‘learned helplessness/powerlessness’. The aim was to give practitioners a more ‘real-life’ insight into what problems a prisoner who scores high on this factor may be encountering, rather than having to deal with the rather abstract notion of ‘maladaptive motivation’.

4.2.7 Factor 3 – Lack Of Direction

The factors that positively loaded onto factor 3 (2 scales) in descending order of magnitude are prison helps and importance. The factors that load negatively onto factor (2 scales) are reoffending interferes and knowledge. This factor explains 13% of the variance.

Factor 3 of the PACI-O bore some resemblance to the Lack Of Direction factor seen with the PCI-OA. In that there were positive loadings on prison helping with goal achievement and a negative loading on knowing what to do and the perception that reoffending will also help goal attainment. The only difference is that the PACI-O had an
extra loading on ‘importance’. Therefore, factor 3 of the PACI-O has been named ‘lack of direction’.

4.2.8 Calculating PACI-O indexes

The 3 factor structure of the PACI-O with all eight rating scales was accepted. The below section details how indices of the PACI-O can be calculated from the factor loadings reported from the PCA.

1/ Adaptive Motivation and the AM (PACI-O) Index - calculated by summing the means of the positive rating scales and subtracting the sum of the means on the negative items. This gives a potential raw score of between 0 and 70. To obtain a 0-10 scale, divide the score by 7 (the number of factors that load onto that factor).

2/ Learned Helplessness/Powerlessness and the LH/P Index - calculated by summing the means of the positive rating scales and subtracting the sum of the means on the negative items on this factor. This method should result in offenders who exhibit more LH/P obtaining a higher LH/P Index score. This comes about due to the negative loadings on this factor being items that offenders with a high AM (PACI-O) Index would score high on, effectively reducing their score on LH/P. This gives a potential raw score of between -30 and 40. To obtain a score between 0 and 10, add 30 to the score and divide by 7 (the number of factors that load onto that factor).

3/ Lack of Direction and the LOD (PACI-O) index - calculated by summing the means of the positive rating scales and subtracting the sum of the means on the negative items. This gives a potential raw score between -20 and 20. To obtain a score between 0 and 10, add 20 to the score and divide by 4 (the number of factors that load onto that factor).
These indices can then be used to assess an offender’s level of adaptive motivation, learned helplessness/powerlessness and lack of direction. The indices can be used for research purposes or by clinicians in practice subject to further validation work.

4.2.9 The Internal Reliability of the PACI-O

Firstly, Cronbach’s Alpha was calculated for the scales that corresponded with the original PCI only (the prison and reoffending scales were omitted). Next, the internal reliability of all the scales belonging to the PACI-O (the means of all 8 ordinal rating scales) were entered into the analysis. Finally, Cronbach’s Alpha was calculated for each of the 3 factors outlined above: adaptive motivation, learned helplessness/powerlessness and lack of direction. The re-offending scale was reversed because a high score on this scale represents a negative outcome (re-offending will help goal achievement) in terms of motivation to stop offending. The reversal of this scale (a high score now indicates a positive outcome – re-offending will interfere with goals) means that in accordance with the rest of the PACI-O scales, a high score is seen as favourable.

The rating scales that feature in both the PCI and PACI-O

PCI scales only

Cronbach’s alpha was calculated for the following scales: importance, likelihood, control, achievability, happiness, and commitment. Listwise deletion was used (missing n=0) and yielded an alpha level of 0.72. The removal of any rating scales did not improve reliability. This is above the generally accepted cut-off of 0.70 for consistency (Kline, 1993, 2000), therefore, it can be concluded that the 6 original PCI scales in the PACI-O are an internally reliable measure of offender motivation. This is concordant with Sellen et al.’s (2009) study and important in terms of the PACI-O being a measure of offender motivation.
The PACI-O rating scales

Listwise deletion was used (missing n=12) and yielded an alpha level of 0.61. The removal of the re-offending scale would have raised reliability to 0.67. However, it was thought that the re-offending scale offered important information regarding offender motivation and was consequently retained. The alpha level of 0.67 is below the acceptable cut-off point of 0.70. Nevertheless, the addition of the prison and re-offending rating scales was thought necessary in order to glean a complete picture of offenders’ motivation structure and ensure that the PACI-O has face validity.

4.2.10 The reliability of the PACI-O factors

Adaptive Motivation: Listwise deletion was used (missing n=5) and yielded an alpha level of 0.67. This is below the acceptable cut-off point of 0.70. The removal of the prison rating scale would have raised reliability to 0.72. However, it was thought that the prison scale would give rise to important information and its inclusion is recommended for exploring offender motivation for treatment and change. The alpha level of 0.67 is only just below the 0.70 cut-off for a reliable measure, therefore, the AM (PACI-O) Index still holds potential. Future studies should look again at the wording of the prison affects scale to assess whether further amendments could increase alpha over the 0.7 accepted level.

For the remainder of the thesis AM (PACI-O) Index will be used to make predictions regarding offenders’ motivation. However, in future, it is important to remember that the PCI scales alone (minus the prison and re-offending scales) may be the most psychometrically robust way to measure offender motivation until further work on the prison and reoffending scales is complete.

LH/P: Listwise deletion was used (missing n=12) and yielded an alpha level of 0.53. This is below the acceptable cut-off point of 0.70. The removal of the re-offending scale would have raised reliability to 0.60. However, the presence of the reoffending scale was deemed
important as it shows how those with LH/P want to change (re-offending interferes with goals) but feel that change is unlikely. The fact that they see re-offending interfering in goals is an important element; therefore the recommendation is not to remove this rating scale.

Some tentative first predictions will be made using the LH/P Index in the current study, in order to explore the potential usefulness of the factor. However, these are preliminary investigations and it is not recommended that practitioners use this index to make predictions of offenders' motivation at present.

Investigations showed that there was a significant negative correlation between the AM (PACI-O) Index and the LH/P Index before treatment (n=51; r= -0.27, p<0.05, 2-tailed). The higher an offender’s AM (PACI-O) Index the lower their LH/P Index. This was true for both the general prison population (n=31, r= -0.35, p<0.05, 2-tailed) and the sex offending sample (n=20, r=-0.71, p<0.001, 2-tailed). As adaptive motivation increases, learned helplessness/powerlessness decreases.

**LOD (PACI-O):** Listwise deletion was used (missing n=12) and yielded an alpha level of 0.18. This is far below the acceptable cut-off point of 0.70. Therefore, extreme caution is warranted regarding this factor, consistent with Sellen’ et al.’s (2009) study.

### 4.3 Discussion

#### 4.3.1 Summary and PACI-O structure

Satisfactory construct validity has been established for the PACI-O in the current study with a sample of 113 adult male offenders. A three factor model emerged when all 8 rating scales were entered into analysis. The presence of some items loading on more than one factor and positively on some and negatively on others makes for a complex analysis. However, rotation of the factors did not simplify the relationship between the factors.
therefore the decision was made to leave the structure unrotated, as with previous studies with the PCI-OA.

The first factor was named adaptive motivation and demonstrated lower, than the generally accepted level of 0.7 (Kline, 1993), yet it still showed acceptable internal consistency (0.67). Offenders who score high on the AM (PACI-O) Index tended to rate their goals as important, they believe goals are achievable, believe themselves to be in control and they know what to do to obtain goals. They think goal attainment will bring happiness, they are committed to goals and believe prison will help them to achieve these goals.

Adaptive motivation is a stable factor seen in a number of previous studies with the PACI-O’s predecessors with offenders (PCI-OA; Sellen et al., 2009) and with other populations (PCI; Cox et al.; Hosier; Hosier & Cox). Therefore, the AM (PACI-O) index has potential to measure offender motivation. The second factor was named learned helplessness/powerlessness and demonstrated low but acceptable (for some preliminary investigations in this thesis only) internal reliability (0.55). Offenders who score high on the LH/P Index felt their goals were important, they were committed and they understand goal achievement would bring happiness and re-offending in the future would interfere. However, they also felt that they lack control, thought their goals are unlikely to be achieved and believed that prison would not help with goal attainment, rather it would interfere. The third factor was named lack of direction, following its similarity to the lack of direction factor seen in the PCI-OA. This factor demonstrated unacceptably low internal consistency (0.18). It is not recommended that a score is computed for this Index at present due to its lack of psychometric robustness. In Sellen et al.’s study the LOD index also yielded an unacceptably low alpha of 0.36. Despite the similarities to the LOD factor in the PCI-OA, the PACI-O LOD factor was deemed too unreliable for prediction making. Therefore, additional work on the LOD index will be required in future research. A factor with five or more strongly loading items (.50 or better) is often the hallmark of a solid
factor (Costello & Osborne, 2005). The relatively few items on this factor (4) and with some of them not yielding high loadings could be the reason for the poor psychometrics displayed for this factor.

The similarities between the PACI-O and the original PCI are that they both focus on the same (albeit differently formatted) life areas, and they both ask participants to rate their goals on the same 6 rating scales (importance, likelihood, control, happiness, knowledge and commitment). However, rather than asking about the problem behaviour of substance abuse, the PACI-O asks about the problem area of re-offending and the impact of the criminal justice system on current life goals. The current study shows the PACI-O is comparable to the PCI in terms of factor structure (e.g., the Hosier, 2002 and Hosier & Cox, 2002 studies). Additionally, like the studies with the PCI-OA (Sellen et al., 2009), the current study demonstrates that the most reliable measure of offender motivation is the 6 PACI-O scales that do not include the Prison and Re-offending help/interfere scales. This confirms the suitability of the PACI-O with an offending population.

The similarities between the PACI-O and the PCI-OA are they too ask offenders to name goals in the same life areas (albeit formatted differently), and ask offenders to rate goals in terms of their value attainability, control and impact of offending and prison. However, they vary in the delivery format (the PACI-O is an abridged PCI-OA) and the amendment to some of the scales (prison and re-offending) and the removal of the unhappiness scale. The current study confirms that the amendments made to the PCI-OA to make it the PACI-O has not dramatically altered the factor structure of the tool (although some differences are witnessed in factor 2). However, the PACI-O is a briefer procedure than the PCI-OA therefore it may have more clinical utility. Additionally, the changes made to the rating scales lead to renewed possibilities to explore the relationships between the PACI-O factors and constructs such as treatment engagement and recidivism.
rates. Chapter 6 of this thesis will explore the potential of the PACI-O factors to
measure motivation to engage in a treatment programme.

The PCA involving all the scales of the PACI-O yielded a similar 3 factor structure
to the PCI-OA. This confirms the construct validity of the PACI-O and its use as a method
to explore offender motivation. The differences between the structural properties of the
PCI-OA and the PACI-O could be attributed to differences in the rating scales input into
analysis and the fact that the PACI-O has fewer life areas, therefore, perhaps encouraging
offenders to mention fewer goals. However, there is also another possibility for the
difference seen in factor 2 between the PACI-O and the PCI-OA and the emergence of a
LH/P factor. The PCI-OA sample contained a mixture of adult male offenders from the
general population (offenders attending a treatment programme and those recruited off
other projects on the prison wings and workshops) that were likely to contain some
offenders who were motivated for treatment and change and some who were not, whereas
the PACI-O sample contained (with the exception of 11 participants) offenders who were
solely attending the Enhanced Thinking Skills treatment programme.

Perhaps the emergence of the LH/P factor arose in the PACI-O only as this may be
more of an issue for offenders who are attending treatment and attempting the change
process. Such offenders would have expressed at least a partial desire to engage in
treatment and change to prison staff, and thus been selected for treatment (and this is
confirmed in the high loadings on value rating scales and the acknowledgement that re-
offending will not help in the future). However, once they attend treatment they may feel
powerless in being able to achieve their personal life goals, treatment goals and/or
subsequent change. Ward et al., (2004) note the importance of the cognitive variable of
client expectation on readiness and treatment outcome. They note client expectations can
be affected by previous experiences with programmes, the reputation of the programmes
and the experience of the assessment process. Burrowes & Needs (2009) also argue that previous experience of unsuccessful treatment may also lower readiness to change.

Ward et al., (2004) state that an offender’s level of self-efficacy can affect treatment readiness. Perceived self-efficacy is thought to be related to enhanced motivation and performance (Bandura & Locke, 2003) and therefore low levels of self-efficacy will be associated with poorer treatment performance. A lack of self-efficacy and a belief that one is unable to change may be a barrier to change that leads to the offender not attempting the change process at all (Burrowes & Needs, 2009). Self-efficacy is task specific, but there are generalised patterns of perceived powerlessness or helplessness named ‘learned helplessness’ (Lopez Viets et al., 2002).

Learned helplessness refers to when an individual gives up trying due to feelings of failure to control one’s environment (Seligman, 1975). The mediating processes between exposure to uncontrollable events and the construct of learned helplessness has been previously studied. Mikulincer (1994) has distinguished between two reactions to future uncontrollable events. The first is personal helplessness or lack of self-efficacy where the individual believes they do not possess the skills and capabilities to evoke the intended outcome. This can occur due to exposure to uncontrollable outcomes. The second reaction is universal helplessness, where an individual feels that no response will lead to the desired outcome. This too can arise due to exposure to uncontrollable outcomes. Ford’s (1992) comprehensive Motivational Systems Theory states motivation is a function of three basic components: goals, emotions and personal agency, or self-efficacy. If any of these components are lacking or insufficient then motivation may be expected to be lower (Ward et al., 2004).

Feelings of powerlessness and helplessness are one of the most common causes of violence in prison (Silberman, 1995). Learned helplessness can be a motivational problem
- when experience leads a person to believe they can do nothing to change their lives, they stop trying (Seligman, 1991). These feelings of learned helplessness and the feeling that the individual has a lack of control over events in their lives can easily lead the offender into the old cycle of behaviour and recidivism (Brewer, 2000). If the prisoner feels they have no chance of escaping from adverse events in their lives, motivational problems may arise as a result regardless of good intentions and a desire to change.

However, as well as identifying those offenders who do have LH/P, it is also important to understand how such a maladaptive motivation structure develops and how it can impact on motivation and re-offending risk in the future. A structure similar to LH/P has been witnessed before in a treatment setting. Schroer et al. (2001, as cited in Schroer, Fuhrmann, & Jong-Meyer, 2004) used a form SMC in a group setting to address motivation for abstinence and further treatment in alcoholism treatment. They noted that clients with a good prognosis index (sociodemographic criteria that have shown to be related to good prognosis e.g. not homeless or living in a residential home for alcoholics, living with a partner; Kufner & Feuerlein, 1989) tended to form more short-term goals with concrete actions in specific situations. Whereas those with an unfavourable prognosis tended to have a motivational structure that on one hand was characterised by ambitious goals with high commitment, happiness and no ambivalence, but on the other hand goal attainment was viewed as less under their control. The good prognosis index was also correlated to a measure of self-regulatory competencies; thus the better the prognosis the more efficient the self-regulation (Schroer et al., 2001). Schroer et al. note that perhaps the self-regulatory actions needed to plan, initiate or maintain goal-related action of clients who have the poor prognosis (e.g. no employment, no partner, or previously received unsuccessful inpatient treatment) may have suffered. Therefore, certain factors damage self-regulatory mechanisms and this in turn leads to maladaptive motivation. The authors also note that more attention should be given to self-regulatory functions in addition to
motivational structure to optimise therapy planning. The motivational structure of those with a poor prognosis bears a strong resemblance to those with a high LH/P Index as measured by the PACI-O.

Two of the six internal determinants thought to underpin motivation for treatment is outcome expectancy (and the related concept of self-efficacy) and perceived suitability of treatment (Drieschner, Lammers & Van Der Staak, 2004. See chapter 1 for more details). Patients who feel that treatment is unlikely to help may feel a sense of demoralisation that results in less motivation to engage in treatment (Drieschner el al., 2004). In the current study, offenders who score high on the LH/P Index believe that prison is unlikely to help their life goals (despite attending the ETS treatment programme) and instead is likely to interfere; they also feel a lack of control over goals and believe such goals are unlikely to be realised. Thus, the LH/P Index may be able to identify problems with the internal determinants that underpin motivation for treatment.

LH/P is viewed as maladaptive motivation and may be problematic. It is negatively related to adaptive motivation and adaptive motivation is associated with readiness for treatment and positive treatment outcomes (Cox, Blount, Bair & Hosier, 2000; Cox et al., 2002; Cox & Klinger, 2002). Therefore, LH/P may be a problem with motivation that is associated with a lack of treatment readiness and poorer treatment outcome.

Laws (1989) argues that when a person feels a situation is beyond his/her coping capacity and begins to experience feelings of helplessness and reduced self-efficacy, then the person is more likely to give in to temptation to offend. This is demonstrated in figure 13 overleaf.
The failure to activate a coping response could be due to lack of skills or inability to activate such skills due to anxieties or beliefs which in turn lead to additional feelings of powerlessness (Laws, 1989). Laws (2000) notes that feelings of powerlessness may lead an offender to compensatory behaviour where they blame other people and start to engage in behaviours to gain power and control.

Under the MORM component of volition, Ward et al., (2004) states motivation for treatment involves the development of intentions to seek a number of pro-social goals, and that another important aspect of volition is the belief that one is capable of choice and has a degree of control over important personal outcomes. Therefore, the emergence of the LH/P factor may inform on a problem with volitional processes that can affect treatment.
readiness. Thus the exploration of the effects of LH/P on motivation for treatment, treatment engagement and outcome is worthy of attention in future studies. Chapter 6 of this thesis will explore the relationship between pre-treatment LH/P and treatment engagement.

4.3.2 The inconsistencies of maladaptive motivation

Klinger & Cox (2004b) note that there is often different results seen with component 2 (maladaptive motivation) and the factor is more variable. Schroer (2001, cited in Cox & Klinger, 2004b) conducted a PCA of a German MSQ version and arrived at a 3 factor solution using varimax rotation. Factor 1 resembled adaptive motivation, however factor 2 and 3 differed from what has usually been reported. Cox & Klinger (2004b) note this may be due to entering different scales into analysis and the decision to rotate. The differences between samples, rating scales and rotation decisions are likely to explain the variable results in the less robust maladaptive motivation factor. However, an important defining characteristic of maladaptive motivation is that one or more of the essential components of adaptive motivation (i.e. value and expectancy components) are lacking (or load negatively) regardless of what the particular omissions are (Cox, personal correspondence, 05/07/09).

Klinger & Cox (2004b) note that despite the more variable nature of maladaptive motivation, adaptive motivation is fairly consistent across studies. The fairly robust factor that is based on adaptive motivation has theoretically important relationships to an individual’s responses to problems stemming from problem behaviour (alcohol use, in their case). Essentially, the generally consistent adaptive motivation may be the most clinically meaningful for other populations and offenders alike.
4.3.3 Considerations of low reliability resulting from the prison/re-offending scales

The internal reliability of the original PCI scales confirms that the PCI scales can reliably measure offender motivation (alpha = 0.72). These six scales could be used to reliably measure adaptive motivation in an offender population. However, despite being a reliable measure, this fails to take into consideration how the offender sees the criminal justice system impacting on their goals (the ‘Prison helps’ scale also loads onto AM in the PACI-O). The whole PACI-O scale failed to reach the widely held acceptable 0.70 cut-off (alpha =0.61) once the prison and re-offending scales were added to analysis.

The prison and re-offending scales appear to be the source of the lowered alpha level seen with the PACI-O. Nevertheless, despite the lower than acceptable alpha scores, each scale loaded onto a different factor which indicates that offenders can now distinguish the subtle difference in meaning between the two scales (unlike during the PCI-OA studies where offenders often failed to differentiate between them). Despite the lower internal reliability level, the prison and re-offending scales may add something above and beyond what the PCI scales alone can in terms of fully understanding offender motivation. Other tools widely used in the offender rehabilitation area, such as the Historical, Clinical, and Risk Management (HCR-20) contain items that bolster face validity and have clinical appeal. Additionally, in studies with substance abusers, it has been found that the ‘alcohol interfering’ rating scale loaded positively onto maladaptive motivation (Cox, et al., in preparation; Hosier, 2002). Thus, substance abusers with maladaptive motivation are more likely to view alcohol use as a greater impediment to goal achievement. Therefore, these target behaviour scales may have predictive validity regarding the degree to which the offender feels prison and future re-offending will impact on important life goals. This justifies the use of the prison and re-offending rating scales in the current studies in this thesis. Further rewording of the prison and re-offending rating scales is required to ensure the reliability of the PACI-O in future studies.
Alternatively, perhaps the PACI-O as a measure of treatment motivation is most useful when it only contains PCI scales and omits the prison and re-offending scales. Thus the prison and re-offending scales are used solely as discussion points to get offenders thinking about the impact of the criminal justice system and future re-offending on their goals. This is an alternative strategy and use of the PACI-O that does not involve further rewording of these scales. Responses on the prison and re-offending scales may be just too variable between participants, goals, life areas and these scales could never be reliable measures. The attention to the impact of the criminal justice system and future re-offending on goals, is an important consideration however, whether it is in rating scale format or just used as a discussion point that could be elaborated on through a motivational intervention.

Finally, another reason for the psychometric problems witnessed may be the occasional missing data on the prison and re-offending scales. It was not always appropriate to ask, or continue to ask, an offender’s opinion on this. For example, if the offender reacted with hostility to the notion they were going to re-offend in the future (even when it was worded hypothetically) then it was not appropriate to continue to ask about their re-offending in the future. The idea of responsivity (tailoring interventions to offenders’ personal style) and therapeutic alliance was deemed more important. Not to mention the ethical implications of distressing an offender with the PACI-O questions.

4.3.4 Limitations of the current study

This chapter addressed how the AM (PACI-O) Index (and other factor) scores could be calculated and used to make assumptions and predictions regarding an offender’s motivation for treatment. However, there is a danger in solely using mean rating scales as a predictor. An offender with one goal could have the same AM (PACI-O) score as an offender with 10 goals, however their motivation structure may be fundamentally different. For example, a good lives plan is a plan that contains all the primary human goods and means
of achieving them in line with an offender’s preferences, abilities and environment (Ward, Vess, Collie, & Gannon, 2006). Life, knowledge, excellence in work and play, excellence in agency, friendship, community and spirituality are examples of primary human goods. One way problems arise for an offender is when they fail to seek the full range of human goods (Ward, 2002). A lack of scope within an offender’s individual GLM is a structural flaw (McMurran & Ward, 2004). Therefore, an offender displaying only one goal (despite rating it high) may not be displaying an overly ‘adaptive’ motivation structure. This potential problem would be obscured by simply using a factor score.

Another limitation of the current study is that the majority of the sample were offenders selected for the ETS treatment programme. Therefore, the factor structure that emerged may only be applicable to offenders who are attending a treatment programme. This would limit its generalisability to other populations. However, the fact that a 3 factor structure emerged, that in many ways was psychometrically similar to the PCI-OA indicates that this is not the case. Nevertheless, caution must be warranted when extrapolating the PACI-O to other populations.

Current thinking in offender rehabilitation is moving away from the thinking that an intervention is a one-size-fits-all ‘cure’. Therefore, it would be erroneous to assume that the PACI-O is suitable or effective for all. Motivational structure may be irrelevant unless there is problem behaviour to resolve; then, the greater the problem, the more adaptive motivation is important (Cox & Klinger, 2004b). This may indicate that the PACI-O may have more predictive validity with high risk offenders as the greater the problem to solve the more adaptive motivation is relevant to the individual. With drinking behaviour, Cox & Klinger (2004b) note that people with no reason to reduce alcohol are unlikely to do so, regardless of how sound their motivation structure is. Therefore, caution may have to be warranted with using the PACI-O and AM (PACI-O) scores to make predictions for offenders.
who deny their offence or believe that there is no reason for them to stop their
behaviour. These offenders may score high for adaptive motivation and display a sound
motivation structure but may fail to use this motivation to change their ways.

The current study aimed to assess the construct validity of the PACI-O by
examining the structural properties and comparing it to that of the PCI and PCI-OA. A 3
factor structure emerged that was similar in nature to the 3 factor structure seen with the
PCI-OA. The PACI-O has 3 factors: adaptive motivation, learned
helplessness/powerlessness and lack of direction. The PACI-O was deemed to have suitable
construct validity and is appropriate for use in exploring offender motivation.

Another aim of the study was to examine the internal reliability of the PACI-O
using Cronbach’s Alpha. The results indicated that the rating scales minus the prison and
re-offending scales was the most reliable measure of offender motivation. However, it was
acknowledged that these scales may add additional information above and beyond the
original PCI scales. Therefore, it was recommended that they be included, whether as
rating scales or discussion points.

The adaptive motivation factor was only just below the recommended reliable cut
off point of 0.7, therefore this scale appears to be the most stable and suitable for
measurement and predictions of offender motivation. It is recommended that the other
indexes (LH/P and LOD (PACL-O)) are not used outside the preliminary investigations in this
thesis until additional work on the nature a suitability of these scales is conducted.

A potential next step involves ensuring that the scales are easily interpretable for
practitioners, and the suggested scoring system is relatively easy to calculate and interpret
in practice. Further work needs to be undertaken to ensure that these scales are adequately
defined and easy to use and interpret in a criminal justice setting.
Studies also need to examine if the PACI-O Indexes can predict who will engage well in treatment and gain positive treatment effects. This will help assess additional psychometric properties of the PACI-O and establish if it can be a useful measure of offender motivation for treatment. Chapter 6 of this thesis deals with this issue.

Finally, work needs to be undertaken to assess how to address a motivational problem (for example a low AM (PACI-O) Index or a high LH/P Index). A Systematic Motivational Counselling (SMC; Cox, Klinger & Blount, 1991) type of intervention could be of considerable use. This technique would use the goals identified in the PACI-O as a framework for therapy. With SMC, maladaptive profiles are identified and targeted for change (Cox & Klinger, 2004c).

The intention is that the PACI-O, through the examination of offenders' life goals and motivation structure, can be a valid and reliable measure of offender motivation to engage in a treatment programme and change their offending behaviour. Motivation by its very nature is dynamic and changeable, thus making it hard to measure or capture. However, the current study has gone some way to demonstrate that the PACI-O may be capable of giving valuable insight into offender motivation. The PACI-O is brief, time efficient and simple to administer without extensive forensic training. If the PACI-O can be validated as a measure or enhancer of treatment motivation it could be of considerable use to offender management services.
Chapter 5 - The development of the Staff Treatment Engagement Questionnaire

Summary

The Staff Treatment Engagement Questionnaire (STEQ) is a 5-question therapist rated instrument to assess the treatment engagement (TE) of offenders attending the cognitive-based Enhanced Thinking Skills (ETS) treatment programme in prison. This study reports on the construction, piloting and psychometric investigations with the STEQ. Promising initial psychometrics are reported including construct, predictive and concurrent validity as well as internal reliability. The discussion focuses on potential uses of the STEQ including being used as a means of evaluating constructs thought to be related to TE (such as offender motivation for treatment) and providing clinicians with a tool to accurately assess offender TE in order to intervene and enhance engagement where necessary to prevent treatment drop-outs. Limitations and future studies are also considered.

5.1 Introduction

5.1.1 Treatment engagement

It is believed that for behaviour change to occur in treatment, the client must actively engage in the treatment process (Levenson, Macgowan, Morin, & Cotter, 2009; Hiller, Knight, Leukefeld and Simpson, 2002) with engagement being seen as an intermediate goal before behaviour change (Ward, Day, Howells & Birgden, 2004). Simpson, Joe, Rowan-Szal and Greener (1995) assert that increased engagement leads to more favourable treatment outcomes and treatment progress is correlated with higher levels of treatment engagement (Levenson & MacGowan, 2004). Through engagement in treatment, the client can freely pursue the cognitive-behavioural treatment goals that can help reduce recidivism (Levenson & MacGowan, 2004).
Additionally, as noted in chapter 1, if offenders do not engage in the treatment programme they may be at risk of dropping out, and dropping out of treatment is related to a higher risk of reoffending (e.g. Cann, Falshaw, Nugent, & Friendship, 2003; Hanson & Bussiere, 1998; McMurry & Theodosi, 2007; Hanson & Harris, 2000). Group members who are positively engaged will be more likely to complete treatment (Macgowen & Levenson 2003). Thus treatment engagement (TE) is an important construct in order to discourage drop-outs, and it may also be important for increasing the effectiveness of the treatment programme.

The concept of TE is often referred to in the Psychology literature, however it has rarely been formally defined or adequately measured for group work (Levenson & MacGowan, 2004). Drieschner and Boomsma (2008) define TE as “the patient’s behaviour, which is (a) desirable or necessary for the treatment to be effective, and (b) under the patient’s volitional control (pp 299-300). Thus, TE is described as a behaviour and is seen as distinct from the related concept of treatment motivation and the cognitive and affective factors underlying motivation (such as problem recognition and outcome expectancy; Drieschner, Lammers & Van Der Staak, 2004).

5.1.2 Measuring treatment engagement

Measures of TE are important as they can help clinicians identify areas in which a client needs assistance to be able to fully engage (MacGowen & Newman, 2005). Hence, clients could receive additional help in order to stay engaged in the process and reap the full benefits of the treatment programme. Identifying and eradicating engagement difficulties early in the treatment process may enhance treatment effects (Levenson & MacGowan, 2004).

Current measures of TE include the Group Engagement Measure (GEM; MacGowan, 1997). The GEM is a 37 item (or shorter version 27 item) therapist scored
instrument that assesses individual client engagement in group treatment (MacGowan & Levenson, 2003). MacGowan (1997) defines engagement as a multidimensional construct which encompass seven dimensions: 1/ attendance and completion of group sessions 2/ Contribution to group either verbally or participating in group activities 3/ Showing support for the work of the leader 4/ Interacting with other group members 5/ Agreeing with the policies and activities of the group 6/ working on their own problems and 7/ Helping other group members work on their problems. The reliability and validity of the GEM has been established in various studies with favourable results (Macgowan, 1997, 2000; Macgowan & Levenson, 2003). Macgowen & Levenson (2003) found that the attendance items and subscales were weak in comparison to the other subscales; meaning attendance contributed negligible amounts to engagement scores in their study. One possible reason for this was that participants were mandated by the courts to attend sessions, and attended regardless of their intrinsic motivation to participate in the group (Macgowen & Levenson, 2003).

The GEM has been successfully used to measure the TE of sex offenders in treatment (Levenson & MacGowan, 2004). However, the GEM is limited to group treatment only (Drieschner & Boomsma, 2008). Additionally, the GEM contains quite a large number of items. While this means it is likely to cover the whole spectrum of TE, it may also mean it is not always practical for regular clinical use. Furthermore, the GEM items are not behaviour specific to the necessary treatment behaviour of a particular treatment programme. The behaviour required that denotes TE may vary for different treatment programmes. Therefore, the GEM may not be sensitive enough to gauge the particular behaviours required for a certain treatment approach.

The Treatment Engagement Rating (TER) scale was developed in the Netherlands and is a new reliable and valid 20 item therapist rated instrument that measures TE in forensic outpatients (Drieschner & Boomsma, 2008). The items of the TER were logically
derived from patient behaviour that is particularly relevant in forensic outpatient treatment. The TER contains 8 components of engagement (plus a total engagement item). These components cover issues related to participation, constructive use of sessions, openness, efforts to change behaviour, efforts to improve socio-economic situation, making sacrifices, goal directedness and reflection between sessions.

Drieschner and Boomsma (2008) state for the TER to be useful for clinical practice, several requirements had to be met: (1) It had to be sensitive to spontaneous fluctuations in engagement that occur as a result of motivational interventions. (2) It had to represent a broad domain of treatment engagement not a single concept such as attendance or homework compliance. (3) It had to be applicable for various kinds of patient (different types of offences, mental health problems etc) and treatments (individual and group settings etc) in forensic outpatient settings. (4) It had to be reliable, and (5) It had to be short enough to allow regular re-assessments.

However, the TER was constructed using items that are especially relevant to engagement in forensic outpatient settings. Thus, the TER may not fully grasp the aspects of TE most pertinent in a prison setting, let alone on a specific programme. A strength of the TER is that context-specific behaviour in the items was avoided making it applicable in a number of forensic outpatient settings. Nevertheless, it may also make it less sensitive to the requirements of particular programmes. Finally, the sample the TER was validated on contained quite a large percentage of voluntary patients (44.2%) and non-offenders (16.5%). Thus, the applicability of the items to TE in a prison setting where offenders are often mandated to a treatment programme may be limited.

5.1.3 The current study

The aim of the current study was to develop a reliable and valid scale that can be used by therapists to accurately rate offenders TE in a cognitive-based prison treatment
programme: Enhanced Thinking Skills (ETS). The development of the Staff Treatment Engagement Questionnaire (STEQ) is first described below, before the details of a pilot study to assess inter-rater reliability are detailed. Next the psychometric properties of the STEQ are examined to assess if the instrument could be a brief clinically useful addition to offender managers and researchers alike. Valid and robust measures of TE could be used by treatment tutors to assess which offenders are having difficulties engaging in the treatment programme. Any offenders who are found not to be engaged could be investigated to assess if there are any particular problems that could be dealt with that would increase TE. There are likely to be a number of internal and external factors that could prove to be an obstacle to TE (see chapter 1), and these could be addressed following assessment of an offender’s TE. Additionally, reliable and valid measures of TE are required for researchers to explore the link between related concepts (such as treatment motivation and TE).

5.2 Constructing the Staff Treatment Engagement Questionnaire

The intention of the current study was to ensure items of the STEQ were logically derived and specific to the TE behaviour required by ETS. ETS is an accredited offender cognitive skills programme which aims to help offenders practice new ways of thinking and behaving that will lead to a reduction in the chance of them re-offending (Consent To The Enhanced Thinking Skills, 2006; CTTETS). The thinking behind ETS is that offenders are unable to reach their goals in pro-social ways due to their thinking styles and attitudes (Post Programme Report for the Enhanced Thinking Skills Programme, 2005; PPRFTETSP). ETS is group based (8-10 participants), with the course typically consisting of 20 sessions (plus a pre-course session) each lasting between 2 to 2.5 hours.

ETS, and other cognitive-based programmes, look at risk requirements and dynamic risk factors (treatment needs). The treatment targets of ETS are: impulse control,
cognitive style, social perspective taking, values, critical reasoning and interpersonal problem solving. Batteries of questionnaires are administered to offenders both before and after ETS to assess the effectiveness of the programme and measure group change on the dynamic risk factors. The questionnaires used are: a measure of locus of control (Craig, Franklin, & Andrews, 1984; described as a measure of much you feel in control of things that happen to you); Eysenk’s Impulsivity Scale (Eysenk & Eysenk, 1978; described as how much a person stops and thinks about things before acting); Gough Socialisation Scale (Gough, 1960; described as a measure of how much an individual understands other people); Short-Self Esteem Scale (Thornton & Jones, 1989; described as a measurement of self-esteem); Crime PICS II (Frude, Honess, & Maguire, 1998; described as measuring attitudes to offending); Quick Discrimination Index (Ponterotto et al., 1995; described as a measurement of how a person views people from different backgrounds); Social Problem Solving Inventory (Hains & Herman, 1989; described as looking at how offenders solve life’s daily problems); The Psychological Inventory of Criminal Thinking Styles (Walters & White, 1989; described as looking at various thinking styles related to criminal and antisocial lifestyles.

ETS targets medium to high risk offenders; persons with a low or medium-low risk of re-conviction are less of a priority for ETS (CTTETS, 2006).

5.2.1 Item selection

The intention was to construct a scale that would likely tap into the TE issues pertinent to ETS and the aim, on this occasion, was for specificity rather than brevity. It was important to look at the behavioural components of TE for ETS. This was because TE is defined as the patient’s behaviour, which is desirable or necessary for the treatment to be effective (Drieschner & Boomsma, 2008). Various treatment approaches may require
different behaviours from the participants. Hence, the behavioural requirements of ETS were examined.

ETS involves a range of activities including: group discussions; skills practice/role-play; small group work; out of session assignments; practice supporting each other. These activities were considered when choosing items for the STEQ. According to the PPRFTETSP (2005) the following areas are assessed in offenders following ETS (table 18) and are viewed as favourable outcomes.

<table>
<thead>
<tr>
<th>Table 18. Required behaviour from ETS participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETS criteria</td>
</tr>
<tr>
<td>Interpersonal problem solving</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Social skills</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Cognitive Style</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Self Control</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Social Perspective Taking</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Moral Reasoning</td>
</tr>
<tr>
<td>Critical Reasoning</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Application of skills covered to real-life situations</td>
</tr>
<tr>
<td>Additional</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

The behaviours that meet the ETS requirements (table 18) were also considered when constructing items for the current study. Finally, personal correspondence with treatment tutors included the researcher being told that “Treatment engagement is about more than turning up and taking part. It’s about reflecting on what was learnt, absorbing and using the information, rather than just learning and repeating parrot fashion”.
The following initial items (table 19) were generated as the preliminary pool of items in the STEQ.

**Table 19. The initial items of the STEQ**

<table>
<thead>
<tr>
<th>Item generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the participant concentrate during class?</td>
</tr>
<tr>
<td>How well did the participant understand the value of the treatment learning points?</td>
</tr>
<tr>
<td>Was the participant able to demonstrate they could apply the lesson material to everyday life situations?</td>
</tr>
<tr>
<td>Did the participant demonstrate reflective thought on the treatment sessions?</td>
</tr>
<tr>
<td>Did the participant complete his assignments to an satisfactory degree?</td>
</tr>
<tr>
<td>Did the participant behave appropriately in class?</td>
</tr>
<tr>
<td>How well did the participant contribute to group tasks?</td>
</tr>
<tr>
<td>Did the participant interact positively with other group members?</td>
</tr>
</tbody>
</table>

* Items pertaining to attendance & punctuality were not included due to them generally being outside the prisoners control.

The new STEQ was deemed to have face validity as it tapped into issues surrounding behavioural aspects of engagement in ETS.

### 5.2.2 The Staff Treatment Engagement Questionnaire (STEQ)

The STEQ was initially an eight item scale that is scored categorically on a three point scale (appendix 15). The aim of using a categorical scale was to operationally define each level of TE and help make the STEQ a brief scale that is appropriate for clinical use.

An example of a STEQ question is shown below in figure 14.

**Example – Please circle the appropriate option:**

**Did the participant concentrate during class?**

a/ He concentrated fully  
b/ He somewhat concentrated  
c/ He did not concentrate

*Figure 14. An example of a question on the STEQ*
5.3 The pilot study. Assessing the inter-rater reliability of the STEQ

Three therapist raters (the three therapists varied), who were ETS tutors, were asked to complete TE information using the STEQ for 18 offenders at a category B prison in South Wales as part of the pilot study process. These offenders did not form part of the randomised controlled trial reported in later chapters of this thesis.

The STEQ is a nominal scale; therefore the appropriate statistic was sought. The Kappa statistic (Cohen, 1960) is usually used for nominal scale agreement when the raters are fixed. However, for more than two raters or situations where the raters judging one subject are not necessarily the same as those rating another, a Generalised Kappa is warranted (Fleiss, 1971). “This statistic measures the degree to which interpretation variability arises from differences among cases relative to differences among readers interpreting the same case” (Crewson, 2005 P. 1393). Software (King, 2004) that used calculations based on equations derived from Fleiss’ (1981) paper was employed for analysis.

5.3.1 The pilot study results

Generalised Kappa was calculated and the decision was made to remove items that tutors did not significantly agree on. The calculations are shown overleaf in table 20.
Table 20. The Generalised Kappa calculations for the 8 items of the STEQ

<table>
<thead>
<tr>
<th>Item</th>
<th>Generalised Kappa</th>
<th>P value</th>
<th>Lower Confidence Interval</th>
<th>Higher Confidence Interval</th>
<th>Standard error*</th>
<th>Decision – discard/retain?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.404</td>
<td>p&lt;0.001</td>
<td>0.134</td>
<td>0.674</td>
<td>0.138</td>
<td>Retain</td>
</tr>
<tr>
<td>2</td>
<td>0.283</td>
<td>p&lt;0.05</td>
<td>0.029</td>
<td>0.536</td>
<td>0.129</td>
<td>Retain</td>
</tr>
<tr>
<td>3</td>
<td>0.490</td>
<td>p&lt;0.05</td>
<td>0.114</td>
<td>0.865</td>
<td>0.192</td>
<td>Retain</td>
</tr>
<tr>
<td>4</td>
<td>0.178</td>
<td>P&gt;0.05</td>
<td>-0.089</td>
<td>0.445</td>
<td>0.136</td>
<td>Discard</td>
</tr>
<tr>
<td>5</td>
<td>0.325</td>
<td>p&lt;0.05</td>
<td>0.052</td>
<td>0.598</td>
<td>0.139</td>
<td>Retain</td>
</tr>
<tr>
<td>6</td>
<td>0.773</td>
<td>P&lt;0.001</td>
<td>0.494</td>
<td>1.051</td>
<td>0.142</td>
<td>Retain</td>
</tr>
<tr>
<td>7</td>
<td>0.237</td>
<td>P&gt;0.05</td>
<td>-0.019</td>
<td>0.494</td>
<td>0.131</td>
<td>Discard</td>
</tr>
<tr>
<td>8</td>
<td>0.181</td>
<td>P&gt;0.05</td>
<td>-0.089</td>
<td>0.45</td>
<td>0.138</td>
<td>Discard</td>
</tr>
</tbody>
</table>

* Based on Fleiss 1981

From examination of the pilot study results, item 1 (concentration) with a Kappa of 0.404 has fair agreement beyond chance; Item 2 (understanding the value of learning treatment points) with a kappa of 0.283 is low but still significant; Item 3 (application) with a kappa of 0.490 has a fair agreement above chance level; Item 4 (Demonstrating reflective thought) with a Kappa of 0.178 is not significant (p>0.05); Item 5 (Completing assignments) with a Kappa of 0.325 is low but still significant; Item 6 (behaving appropriately) with a Kappa of 0.773 has excellent agreement beyond chance; Item 7 (Contributing to group tasks) with a kappa of 0.237 is not significant (P>0.05); Item 8 (positive interaction) with a kappa of 0.181 is not significant (P>0.05).

The decision was made to remove items 4, 7 and 8, based on the statistical significance value, therefore leaving the 5 items that raters significantly agreed on. Thus, the final STEQ questionnaire was a 5 item categorical questionnaire (appendix 16).

As well as exhibiting potential as a measure that can be scored on a categorical scale, the STEQ also has the potential to be rated on an ordinal scale within the stated categories. An example of how the STEQ could be rated ordinally is show below in figure 15.
For example – Please circle a number below within one of the 3 categories.

<table>
<thead>
<tr>
<th>1</th>
<th>Did the participant concentrate in class?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>He did not concentrate</td>
</tr>
<tr>
<td>1</td>
<td>He somewhat concentrated</td>
</tr>
<tr>
<td>2</td>
<td>He completely concentrated</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

Figure 15. Rating the STEQ on an ordinal scale

It was deemed most helpful and informative if the STEQ was used as an ordinal scale (with the categorical verbal anchors) during the current studies in this thesis (appendix 11). This could help assess the feasibility of it being used as an ordinal scale in the future, plus it would aid comparisons between various scales for validity purposes. Additionally, by using the STEQ as an ordinal measure may lead to increases in its sensitivity and specificity. If deemed valid and reliable, practitioners would then have a choice as to whether to use the scale in its categorical form or its ordinal guise. The minimum score possible on the STEQ is 0 and the maximum 55. The following study reports on the psychometrics of the STEQ with 104 offenders.

5.4 Psychometric testing of the STEQ

5.4.1 Method

Participants: The sample consisted of 104 offenders who successfully completed the ETS treatment programme. Therapist raters were a selection of ETS treatment tutors who were deemed (by the ETS team) to have worked most closely with the offenders in question during treatment. The tutors rated the offenders confidentially.

The offender sample consisted of those housed at a category B general prison population and sex offenders at a category C prison. The therapist raters were based at both prisons
and rated their respective clients. Each offender’s consent to collect this information was obtained and the study approved by the Prison Governor at both prisons.

**Measures:** In addition to the STEQ, three additional measures were used. The first was the 27 item GEM (MacGowan, 1997; appendix 17 and described above in the introduction section of this chapter). This was used to obtain concurrent validity for the STEQ. If the STEQ is a valid and reliable measure of TE it should positively correlate with the GEM which has already been shown to display robust psychometrics.

The second additional measure to assess the validity of the STEQ was an adapted version of the scale for offenders: the Prisoner Treatment Engagement Scale (PTEQ). Like the STEQ, the PTEQ was a 5 item ordinal scale with verbal anchors (appendix 11). It aimed to measure the degree to which the offenders believed they engaged in the ETS treatment programme. If the STEQ measures the construct of TE then it should positively correlate to the degree that offenders believe they themselves engaged in the treatment programme.

Finally, Eysenck’s Impulsivity Scale (Eysenck et al., 1978; EIS; appendix 12) was used to assess the predictive validity of the STEQ. As noted above, impulsivity is one of the criminogenic needs targeted by the ETS programme and is measured both before and after treatment to assess change. Simpson et al., (1995) notes that increased TE leads to more favourable treatment outcomes. Thus, if the STEQ is really measuring TE, it could be predicted that high TE as measured by the STEQ will be related to lower impulsivity levels as measured by the EIS following ETS.

**Procedure:** Therapists completed the STEQs and GEMs in the week following treatment completion. These instruments were completed at their work desks in the resettlement area of the prison or Psychology office. Therapists were instructed to only rate offenders they
felt they had sufficient information on. They were asked to discard any questionnaires that asked about offenders who failed to complete the ETS programme.

Offenders completed the PTEQs and EIS in the two weeks following completion of ETS. The PTEQs were completed with the researcher at the same time that offenders were being interviewed for a number of other studies reported in this thesis. Details of the interview procedure can be seen in chapter 4. The offenders completed the EIS in an interview room (usually in the resettlement area of the prison). Often offenders are required to complete the post-treatment questionnaire process in the same room as other offenders in the group who are also completing the questionnaire battery - two ETS facilitators are also present (Accredited Offending Behaviour Programmes. A Guide to Consent, 2007; AOBPAGTC).

**Data Analysis:** An exploratory Principal Components Analysis (PCA) was conducted with the 5 item scores on the STEQ to assess construct validity. Exploratory PCA was chosen due to this being the first analysis of the STEQ. Next, Cronbach’s Alpha was computed to assess the internal reliability of the scale.

To further assess validity, three bi-variate non-parametric Spearman’s correlations were run between the four measures used in the current study. Non-parametric analysis was chosen as following data screening it emerged that the data had a slight positive skew. Correlations were run between: the STEQ and GEM; the STEQ and PTEQ and finally; the STEQ and EIS.
5.4.2 Results

5.4.2.1 Descriptive statistics

The means and standard deviations of each item and total STEQ score are shown below in table 21. The minimum possible individual item score is 0 and the maximum 11. The minimum possible overall STEQ score is 0 and the maximum 55.

![Table 21. descriptive statistics for the STEQ items and overall STEQ](image)

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean (n=104)</th>
<th>Standard Deviation (n=104)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1 - Concentration</td>
<td>7.71</td>
<td>2.60</td>
</tr>
<tr>
<td>Item 2 - Understanding</td>
<td>7.13</td>
<td>2.37</td>
</tr>
<tr>
<td>Item 3 - Application</td>
<td>6.41</td>
<td>2.94</td>
</tr>
<tr>
<td>Item 4 - Assignments</td>
<td>7.63</td>
<td>2.42</td>
</tr>
<tr>
<td>Item 5 - Behaviour</td>
<td>7.46</td>
<td>2.70</td>
</tr>
<tr>
<td>Total STEQ Score</td>
<td>36.48</td>
<td>11.03</td>
</tr>
</tbody>
</table>

5.4.2.2 Factor Analysis

A PCA was conducted and loadings above 0.3 were reported. Results were also determined by examining the scree plot and adhering to the >1.0 eigenvalue criterion (figure 16 below). The PCA included all 5 of the items on the scale and included 104 completed STEQs. Measures of sampling adequacy indicated that the included indices were appropriate for factor analysis (Bartlett’s Test of Sphericity $\chi^2 = 179.59$, p < .0001; Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.85). All individual items met the requirement for sampling
adequacy.

*Figure 16* The Scree plot for TEQ. Values > 1 retained.

All five items load positively on one factor only (named treatment engagement; TE) and this factor explained 75% of the variance. The factor loadings are shown below in table 22.
Table 22. Factor Structure of the TEQ (loadings >0.30 shown)

<table>
<thead>
<tr>
<th>Index</th>
<th>Factor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Engagement</td>
<td></td>
</tr>
<tr>
<td>Concentration</td>
<td>0.89</td>
</tr>
<tr>
<td>Understand value of learning points</td>
<td>0.80</td>
</tr>
<tr>
<td>Apply lesson material to real-life</td>
<td>0.83</td>
</tr>
<tr>
<td>Assignment completion</td>
<td>0.87</td>
</tr>
<tr>
<td>Behaviour</td>
<td>0.87</td>
</tr>
</tbody>
</table>

5.4.2.3 Cronbach’s Alpha

Cronbach’s Alpha was calculated for all five items using the data from 104 STEQs. Listwise deletion was used (missing n=0) and yielded an alpha level of 0.91. The removal of any rating scales did not improve reliability. This alpha level is above the generally accepted cut-off of 0.70 for consistency (Kline, 1993). Therefore, it can be concluded that the 5 STEQ items are a highly internally reliable measure of offender treatment engagement.

5.4.2.4 Concurrent validity

The total score on the STEQ and GEM for the offenders was correlated and found to be significantly positively related (n= 104; r=0.767, p<0.001, 1-tailed). This is as predicted and suggests that the STEQ has concurrent validity.
5.4.2.5 *Construct validity*

The total score on the STEQ and PTEQ for the offenders was correlated and were found to be significantly positively related (n=93; r=0.310, P<0.001, 1-tailed). This is as predicted. The higher the TE score given by staff, the higher the offender believes that they did indeed engage in the ETS programme.

If greater TE leads to more favourable treatment outcomes and one of the anticipated outcomes of ETS is to reduce impulsivity levels, then scores on the STEQ could be predicted to be negatively related to post-treatment impulsivity as measured by the EIS.

A Spearman’s correlation was run between 80 offenders’ STEQ and EIS scores. TE was found to be significantly negatively correlated to levels of post-treatment impulsivity (r=-0.41, p<0.001, 1-tailed). Thus, the higher the TE score the lower the impulsivity level after treatment.

5.5 Discussion

5.5.1 Summary

The aim of the current study was to develop a reliable and valid therapist rating scale of TE for offenders attending the cognitive-based ETS programme in prison. Preliminary results indicate that the STEQ is both reliable and valid.

Exploratory PCA found that the STEQ represents a single dimension named Treatment Engagement (TE). This adds weight to the assumption of structural validity of the newly developed instrument. The highly reliable Cronbach’s Alpha value of 0.91 further supports this assumption and shows the STEQ to be an internally reliable scale to
measure TE. Further validity was obtained by highlighting how scores on the STEQ correlate to (1) A prisoner rating of their own engagement (PTEQ) (2) Another measure of TE: the GEM and (3) Post-treatment impulsivity measured by the EIS. Overall, the brief STEQ has shown potential to be a valid and reliable measure of TE that could utilised by offender management services.

5.5.2 Potential uses

The STEQ could potentially be used in a clinical or research setting in a number of ways. Firstly, it could be utilised as an outcome measure for evaluating treatment motivation interventions. If the STEQ accurately reflects the construct of TE then differences in scores should be witnessed as a result of successful motivation enhancing interventions designed to increase TE.

Secondly, it could be used to identify offenders who may be at risk of dropping out of treatment, in order for correctional staff to implement a motivation intervention with the offender as soon as possible. As noted, dropping out of treatment is related to higher risk of re-offending (e.g. Cann et al., 2003; Hanson & Bussiere, 1998; McMurran & Theodosi, 2007; Hanson & Harris, 2000) and clients who are positively engaged will be more likely to complete treatment (Macgowen & Levenson 2003). Thus, the monitoring of TE throughout the treatment process is important.

Next, an offender’s level of TE can be explored with respect to related concepts such as motivation for treatment. It could provide a foundation to investigate what internal or external characteristics result in higher levels of TE. Treatment motivation is hypothesised to predict TE (Drieschner et al., 2004); therefore the STEQ could form the basis of an exploration between the supposed related concepts of motivation to engage in treatment and level of TE.
Finally, it could be used by practitioners to assess which parts of TE some offenders may be struggling with and provide guidance on what areas an offender may need additional work. For example, an offender could be highlighted as scoring consistently low on the ‘completing assignments’ item. Hence, extra support could be targeted in that area to boost TE and increase the treatment effects.

5.5.3 Limitations of the study

There are a number of limitations of the current study and each will be addressed in turn. Firstly, the STEQ was piloted using Generalised Kappa. Certain factors can affect the external validity of such agreement studies. This includes the varying experiences and training of the raters and problems with the face validity and clarity of the categories in the scale (Crewson, 2004). However, all the raters were ETS tutors who would have undergone similar training and the STEQ items were deemed to have face validity as they were derived from reading the literature on the behavioural requirements and expected outcomes of ETS as well as from advice from the ETS tutors beforehand.

The STEQ was piloted as a categorical scale and then used as an ordinal scale to help assess the full potential of the scale and to aid comparisons and analysis between other measures in the study. Therefore, the STEQ should go through more piloting as an ordinal scale in order to further assess its psychometric properties.

Additionally, the high internal reliability of the scale (0.91) may indicate that treatment tutors could rate offender’s TE with a single question (as opposed to five). Future studies should assess the predictive merits of gauging offender TE via a single item (i.e. asking tutors “Please rate on a scale of 0-10 to what degree you felt the offender engaged in treatment”) in comparison to using the 5-item STEQ.

As noted, the STEQ scored very high for reliability. However, this may due to a ‘Halo Effect’ (Drieschner & Boomsma, 2008). The halo effect is a cognitive bias which
occurs when a person is rated well on one dimension and is therefore deemed to be as equally good on other dimensions. For example, a therapist may remember an offender performing well on group tasks and assignments and as a result rate them (artificially) high on the item pertaining to concentration. Additionally, the ratings on the STEQ may be subject to rater bias as the ETS tutors rated their own offenders for TE. Due to social desirability (and the realisation that if none of the offenders performed well it may be a reflection on the teaching methods) it may have seemed advantageous to rate their own offenders higher. However, the significant positive correlation between the tutors’ ratings and the offenders’ own ratings of TE suggest that this was not the case.

The current study rated TE with the STEQ and GEM at the end of treatment only. Thus, subtle and natural fluctuations of TE over the course of the treatment programme may have been missed. Taking the measurement once and only at the end could be viewed as a rather crude and narrow ‘snippet’ of TE. The GEM is usually utilised from the midpoint of treatment onwards and typically asks for engagement over the ‘past few consecutive sessions’. Therefore, implementing it on one occasion, at the end only, may have affected the reliability and validity of the results. However, the researcher (and ETS tutors) did not have time within the proposed study period to issue the TE measures more than once. In spite of this, future studies with the STEQ should explore TE both in the early, middle and late stages of the programme.

The aim was to develop a specific scale to measure TE in a cognitive-based prison treatment programme. Items were derived from the behavioural requirements of ETS. This made for a specific scale, however, the brief (and as a result, a scale not able to cover all dimensions of TE) and context-specific nature of the STEQ will limit the generalisability of the instrument. Nevertheless, ETS is a relatively common offender treatment programme so the STEQ may have a place in offender management’s repertoire of measures of prison programme TE. Additionally, it was found to correlate with the GEM
which is a more general measure of TE. Thus, the STEQ may have potential to be a
more broad measure of TE like the GEM, however the STEQ is briefer and therefore more
time-efficient to administer in practice.

A final limitation was the assumption that higher TE predicts lower impulsivity
after treatment. However, causation cannot be assumed; it could be that those with lower
impulsivity to start with are most likely to be rated higher as engaging in treatment. Even
so, the aim was not to speculate about causality, but merely to investigate the hypothesised
link between the construct of impulsivity and the supposed construct of TE measured by
the STEQ. Additionally, it cannot be assumed that ratings on the STEQ will relate to
reductions in re-offending risk (beyond that of positive shifts on self-report
questionnaires). These TE ratings need to be investigated with regard to their role in the
extent to which an offender makes real world behaviour change. Otherwise ratings of TE
and treatment progress will be moot.

5.5.4 Conclusion

The current study involved the development of a reliable and valid measure of
offender TE in the prison-based ETS treatment programme. As well as being internally
reliable, construct, concurrent and predictive validity were established for the newly
developed STEQ. Hence the STEQ has demonstrated potential as a robust research tool
that could be used to explore the relationships between TE and related constructs such as
treatment motivation.

A strength of the study is that TE was rated in a naturalistic prison setting with
busy therapists and this would be helped by the fact the STEQ is brief and quick to
administer and score. Hence, the STEQ investigations have ecological validity. Further
validation work is required; however, the current study has gone some way to highlighting
the potential of the STEQ to measure TE in a cognitive-based prison treatment programme.
Once validation is complete, accurate cut-off points need to be established that can help clinicians distinguish between those offenders who are, and who are not, adequately engaged in treatment. The identification of cut-off scores for use in clinical decision making is important (Casey et al., 2007). Once further validation and exploratory work is conducted, the STEQ could be a clinically useful measure that could be utilised by offender managers to monitor offenders' engagement in treatment. This could be advantageous given that engagement in treatment is often seen as an intermediate goal before change in criminogenic need occurs (Ward et al., 2004).
Chapter 6 - The Personal Aspirations and Concerns Inventory - for Offenders as a Measure of Offender Motivation for Treatment and Change

Summary

The Personal Aspirations and Concerns Inventory –for Offenders (PACI-O) can identify adaptive and maladaptive motivation (identified as a learned helplessness/powerlessness factor in this thesis) profiles an offender may hold. The current study examines the potential of these motivation profiles to identify which offenders are more likely to engage in a prison-based cognitive-skills treatment programme. It was found that for the general prison population, the higher the adaptive motivation and the lower the maladaptive motivation, the more they engaged in treatment. This was not found for the sex offending sample. Additionally, adaptive motivation was found to significantly increase and maladaptive motivation decrease following treatment for the general prison population. Again, this finding was not apparent in the sex offending sample.

The results are discussed in relation to the potential of the PACI-O being used as a pre-treatment selection tool to ensure offenders who are selected for treatment are adequately motivated and an identifier of those offenders whose motivational problems may mean engaging in treatment is difficult. Furthermore, the PACI-O’s use as a measure of treatment progression is discussed.
6.1 Introduction

Attempting to assess offender motivation to engage and complete a prison treatment programme is imperative, as offenders who drop out of treatment may be at higher risk of recidivism than both untreated offenders or those who complete treatment (e.g. Cann, Falshaw, Nugent, & Friendship, 2003; Hanson & Bussiere, 1998; McMurray & Theodosi, 2007; Hanson & Harris, 2000). To minimise potential attrition it may be helpful to assess how likely offenders are to engage in treatment before they attend the programme (Day et al., 2009). Thus, predictions of who will engage in treatment could be of tremendous use to offender management services.

Treatment motivation is defined as the offender's motivation to engage in their treatment. Treatment motivation is viewed as distinct from the internal variables that are thought to cause it (i.e. outcome expectancies, problem recognition etc) and the resulting behaviour that motivation brings about (i.e. treatment engagement; Drieschner, Lammers & Van Der Staak, 2004). Motivation is acknowledged as variable and dependent on external events and internal experiences (Barrett, Wilson & Long, 2003; Howells & Day, 2003). Motivation for treatment is thought to be influenced by external or general offender factors (for example, circumstance, demographic factors) and is mediated by the internal determinants (Drieschner et al., 2004). Motivation is viewed as a component of treatment readiness, and treatment readiness is viewed as a subset of the responsivity concept talked of in the RNR model (Howells & Day, 2003).

Ward Day, Howells and Birgden (2004) note motivation to enter treatment involves the will to seek a number of goals, one of which is to behave pro-socially. Treatment motivation is thought to predict treatment engagement (Drieschner et al., 2004). The judgement that an offender is motivated for treatment is a prediction that he/she will engage in and complete treatment (Ward et al., 2004).
6.1.1 Existing measures of offender motivation and readiness

The need to assess a candidate’s appropriateness for offender rehabilitation treatment is apparent; however there is a lack of validated tools for this purpose (Casey et al., 2007). Chapter 1 outlined a number of current measures of offender motivation and readiness. These include: the University of Rhode Island Change Assessment (URICA; McConnaughey, Prochaska, & Velicer, 1983; McConnaughey, DiClemente, Prochaska, & Velicer, 1989); The Anger Readiness to Change Questionnaire (ARCQ; Williamson, Day, Howells, Bubner & Jauncey, 2003); The Treatment Motivation Scales for forensic outpatients treatment (Drieschner & Boomsma, 2008; TMS-F); The Patient Motivation Inventory, Patient Perception Questionnaire and the Patient Attitude Questionnaire (Gudjonsson, Young & Yates, 2007); the Criminal Justice Client Evaluation of Self and Treatment (Garner, Knight, Flynn, Morey & Simpson, 2007). The Corrections Victoria Treatment Readiness Questionnaire (CVTRQ; Casey, Day, Howells, & Ward, 2007) and the Violence Treatment Readiness Questionnaire (Day et al., 2009). Each has particular strengths and weaknesses - see chapter 1 for details of these scales.

6.1.2 The Personal Aspirations and Concerns Inventory – for Offenders (PACI-O)

The Personal Aspirations and Concerns Inventory – For Offenders (PACI-O; appendix 6) is a potential measure of offender treatment motivation (please see chapter 1 and 2 for full details of the PACI-O). The PACI-O can identify an adaptive, maladaptive (learned helplessness/powerlessness; LH/P) and lack of direction motivation profiles in offenders. Adaptive motivation measured by the PACI-O is characterised by feelings of high likelihood of goal attainment, expected happiness at goal attainment, commitment to goal pursuit, knowledge on how to achieve goals, control over goal achievement, goal importance, and the view that prison will help with goal achievement. Adaptive motivation
may be of particular interest due to its predictive validity in other populations (Cox, Blount, Bair & Hosier, 2000; Cox et al., 2002).

Offenders who score high on the LH/P factor feel their goals are important, they are committed and they understand goal achievement would bring happiness and reoffending in the future will interfere. However, they also feel that they lack control, think their goals are unlikely to be achieved and think prison won’t help with goal attainment, rather it will interfere. Learned helplessness can be a motivational problem - when experience leads a person to believe they can do nothing to change their lives, they stop trying (Seligman, 1991). It has been hypothesised that LH/P may be an impediment to treatment motivation and engagement (chapter 4). LH/P is negatively related to adaptive motivation and adaptive motivation is associated with readiness for treatment and positive treatment outcomes (Cox et al., 2000; Cox et al., 2002; Cox & Klinger, 2002). The lack of direction factor displayed unacceptably low internal reliability. Therefore predictions with this factor are not recommended at present.

6.1.3 The PACI-O as a measure of motivation

The motivational model of Cox & Klinger (1988, 1990) states that substance abusers decide to change their behaviour when they view the positive affective consequences of change outweighing the negative ones. Cox et al. (2000) note that an important determinant of the balance between positive and negative affective expectancy is the degree to which the individual expects to obtain emotional satisfaction from other life areas if they change their problem behaviour. Thus, an individual will be motivated to change if they anticipate finding satisfaction in alternatives to the problem behaviour (in this case offending) and does not expect unbearable discomfort as a result of ceasing the problem behaviour (Cox et al., 2000). From this viewpoint, motivational structure is seen as a mediator of anticipated emotional satisfaction.
The PACI-O was derived from Cox & Klinger’s motivational model. Therefore, it is suggested that an offender’s readiness to change may be associated with their motivation structure. However, rather than being a direct measure of motivation to change, it is suggested that the PACI-O may be a measure of treatment motivation. Thus an offender’s motivation structure is hypothesised to be a measure of the degree to which an offender would be willing to engage with a treatment programme in order to acquire the skills in treatment needed to change their offending behaviour. As noted in chapter one, treatment may be a mediator between pre-treatment motivation and behaviour change (DeLeon, Melnick, Thomas, Kressel, & Wexler, 2000). Additionally, the PACI-O may pick up on any general motivation problems (such as LH/P) that could be an impediment to treatment engagement and success.

Sellen, McMullan, Theodosi, Cox & Klinger (2009) argued that the PCI-OA (the predecessor of the PACI-O) did not predict offender reconviction, and may therefore have most use as a measure of offender motivation to engage in a treatment programme. Thus there stands a need to explore the predictive validity of the motivation structures derived from the motivational model of Cox & Klinger with offenders via the PACI-O.

6.1.4 Using the construct of motivation to predict treatment engagement

Finally, it must be acknowledged that motivation alone may not be a sufficient enough condition for treatment engagement, completion and change. To be ready for treatment, the offender must be motivated, find the treatment relevant and have the capacities to engage with it (Ward et al., 2004). As noted earlier, the relationship between motivation to engage in treatment and actual treatment engagement is not thought to be directly linear due to patients lacking the capacity to do what the treatment approach requires (e.g. cognitive, neuropsychological reasons; Drieschner et al.) as well as the necessity of the other readiness conditions stated by the Multifactor Offender Readiness
Model (MORM, Ward et al., 2004). However, Hiller, Knight, Leukefeld and Simpson (2002) found that motivation for treatment was associated with psychological indicators of engagement even following controlling for factors that may have confounded with the relationship. They state that this highlights the importance of examining the influence of motivation on the treatment process.

In the current study, motivation for treatment is examined in isolation and the results discussed in light of its place within the realms of a broader construct of readiness. While examining the whole construct of readiness may lead to a greater understanding of treatment engagement, it is important to glean a greater understanding of each facet of readiness. Therefore, individual investigations of offender motivation and treatment engagement are warranted.

6.1.5 The use of the PACI-O as a measure of motivation

There is a need for valid and reliable assessments of motivation for identifying which offenders are most likely to benefit from treatment and who require a pre-treatment motivation enhancement intervention. Higher levels of motivation for engagement should be viewed as a strength whereas lower levels can be strategically targeted to strengthen offender motivation and readiness (Garner et al., 2007).

This could aid programme selection to ensure that the treatment is suitable for those who attend in terms of adequate motivation to engage and complete the programme. This would allow for the opportunity to prevent treatment drop-outs by effectively targeting interventions. Those offenders found to have low adaptive motivation could be assisted to increase their intrinsic motivation through pre-treatment intervention or through exerted effort by the therapists during the programme. Motivational assessment may also show areas where the offenders need additional help or highlight any particular motivation problems (such as LH/P). Measures of motivation are also of use to monitor how an
offender is progressing in treatment. Motivation for treatment can be weakened or strengthened by a number of internal or external determinants throughout the treatment process, therefore assessments of motivation may be able to monitor this and provide opportunities to intervene with motivation enhancers when necessary.

6.1.6 The current study

Casey et al. (2007), state measures that purport to assess readiness in offenders such as the PCI-OA (Sellen, McMurran, Cox, Theodosi & Klinger, 2006, 2009) were not derived from a model of offender readiness, and their predictive validity has yet to be established. The PACI-O was developed from the PCI-OA and the current study aims to assess its predictive validity. Predictive validity refers to the association between a measure and a theoretically related outcome (Day et al., 2009). The PACI-O is not derived from a model of readiness; however it may help highlight components of the MORM that the CVTRQ may not (i.e. volition; see chapter 1 for more details on the CVTRQ).

During psychometric exploration of the ARQ, Williamson et al. (2003) proposed two ways of examining predictive validity based on two different orientations. The first suggested was that ‘readiness’ moderates treatment effectiveness and is therefore seen as a responsivity measure. Thus those with high readiness to change will reap most treatment benefits. Alternatively, readiness to change could be viewed as a mediator between treatment and change and reflects a mechanism for change. Thus, readiness occurs as a result of treatment and this subsequently leads to outcome change. They accrued more support for the first model where higher treatment readiness before treatment is related to treatment effectiveness. Thus, treatment was found to reduce anger more in those who had high readiness scores before treatment. They found no support for the view that a change in readiness as a result of treatment leads to changes in outcome measures. In the current study, the PACI-O will be tested from the viewpoint that those with higher motivation for
treatment (more AM and less LH/P) will engage more in treatment. The value of a measure of treatment readiness is dependent on its ability to identify who will and will not benefit from treatment (Casey et al., 2007). Therefore, the PACI-O factors (adaptive motivation and learned helplessness/powerlessness factors) will be examined with regard to their use as a measure of treatment motivation in order to predict who will engage in treatment.

Adaptive motivation is associated with determination to change in other populations (Cox et al., 2000), therefore it would be expected that higher adaptive motivation in offenders would be associated with higher treatment engagement. If the LH/P factor of the PACI-O really does measure maladaptive motivation then it should be predicted that the higher an offender scores on the LH/P factor the less they will engage in treatment.

The Enhanced Thinking Skills (ETS) treatment programme has shown some degree of success at reducing re-offending rates (Friendship, Blud, Erikson & Travers, 2002), however the data on the effectiveness of ETS to reduce long-term re-offending is inconclusive (e.g. Cann et al., 2003). ETS aims to help offenders practice new ways of thinking and behaving that will lead to a reduction in the chance of them re-offending (Consent To The Enhanced Thinking Skills, 2006; CTTETS). The rationale behind ETS is that offenders are unable to reach their goals in pro-social ways due to their thinking styles and attitudes (Post Programme Report for the Enhanced Thinking Skills Programme, 2005; PPRFTETSP). Thus, if the PACI-O is a measure of motivation, it should be sensitive enough to pick up differences in motivation and goals following ETS. If successful, the PACI-O could be used as a measure to assess how treatment is progressing.
6.1.7 Hypotheses

- An offender’s adaptive motivation score will be positively related to the degree to which they were deemed to have engaged in treatment – H1

- An offender’s LH/P score will be negatively related to the degree to which they were deemed to have engaged in treatment – H2

- Offenders’ adaptive motivation score will be significantly higher following a prison-based cognitive treatment programme – H3

- Offenders’ LH/P score will be significantly lower following a prison based treatment programme – H4

6.2 Method

Participants: Participants were 51 adult male offenders housed at a Category B and C prison (the offenders from the Category C prison were a sex offending sample) in the UK. All participants were due to start the ETS treatment programme within a week. These participants were part of the randomised controlled trial sample described in chapter 3. Participants were the offenders who made up the experimental condition of the trial (i.e. those offenders who had time 1 PACI-O data and a treatment engagement score)

Measures: The Personal Aspirations and Concerns Inventory – for Offenders (PACI-O). This semi-structured interview procedure is described in detail in chapter 3 and is shown in full in appendix 6. As reported in chapter 4, the adaptive motivation factor has demonstrated reasonable reliability. From summing the items that load onto adaptive motivation, an AM (PACI-O) Index can be calculated. This index can be used as a measure of the amount of adaptive motivation held by the offender. See chapter 4 for details on the calculation of the AM (PACI-O) Index.
An adaptive motivation PACI-O score was also calculated using just the importance, likelihood, control, knowledge, commitment and happiness rating scales and omitting the prison and re-offending rating scales. This index was named the Personal Aspirations and Concerns Inventory – for Offenders (No Prison/Re-offending scales; *PACI-O (No P/R)* Index. Chapter 4 suggested that this PACI-O scale has a Cronbach’s Alpha of 0.72, and was hypothesised to be a more internally reliable measure of offender adaptive motivation.

The LH/P factor displayed low, but acceptable internal reliability (chapter 4), deemed suitable for preliminary investigations in this thesis. An LH/P Index can be calculated by summing the means of the positive rating scales and subtracting the sum of the means on the negative items. This score can be viewed as a measure of the degree to which an offender holds a LH/P attitude to goals.

*The Staff Treatment Engagement Questionnaire (STEQ).* The Staff Treatment Engagement Questionnaire (STEQ) was used to measure treatment engagement. This is a new brief 5-item therapist rated scale designed especially to measure the construct of treatment engagement in ETS. Preliminary studies suggest the STEQ is a reliable and valid measure (see chapter 5 for details and appendix 11 for a copy of the STEQ). Treatment engagement is judged on evidence of behaviours that are required for the ETS programme to be successful in bringing about changes in treatment targets (reductions in dynamic risk factors). Items include asking about the offenders’ concentration, group work and assignment completion.

**Procedure:** Participants were interviewed with the PACI-O in the week proceeding commencement of ETS. Details of the PACI-O interview procedure can be found in chapter 3. Staff completed the STEQs for each offender in the week following the completion of the ETS programme.
Method of Analysis: The general prison and sex offending sample were analysed together for statistical power and were split in case important differences existed between the two populations. This reduced the statistical power, however, it was necessary to ensure that potential differences regarding the PACI-O’s potential with different populations was not overlooked. The numbers were deemed adequate for preliminary investigations, however, larger numbers are recommended for future studies. Bi-variate correlations were run between the AM (PACI-O) Index and STEQ scores and the LH/P Index and the STEQ scores. The non-parametric Spearman’s Rho was used as data did not meet assumptions of normality. Non-parametric Wilcoxon signed ranks tests were used (as data did not meet statistical assumptions) to assess the pre and post differences on AM (PACI-O) and LH/P Indexes.

6.3 Results

6.3.1 The predictive validity of the adaptive motivation factor of the PACI-O – H1

The combined prison population samples

Assumption testing revealed that AM (PACI-O) Index scores displayed a slight negative skew (Kolmogorov-Smirnov and Shapiro-Wilk < 0.05) and the presence of an outlier. Data were reversed then transformed using a log transformation. However, this created a more severe skew and created more outliers. Therefore, the decision was made to not transform the data but to bring the original outlier into the dataset and conduct non-parametric tests. There was an outlier in the form of an extremely low AM (PACI-O) Index score (p 116). The participant was given the next lowest score in the data set minus 1 for the current analysis. The original score was 35 and the next lowest score was 45.50. Therefore, participant number 116 was given a score of 44.50. If transformation of a non-normal data distribution fails then ‘the next highest (or lowest) score plus (minus) one’ is
an option of changing the unrepresentative score (Field, 2005). This action removed both the outlier and the negative skew (Kolmogorov-Smirnov and Shapiro-Wilk > 0.05).

However, non-parametric tests were still used as a precaution. The minimum possible score on the AM (PACI-O) Index was 0 and the maximum was 70. The data ranged from 35 (before amendment) to 70. For the 51 participants involved in this analysis, the mean AM (PACI-O) Index score after amendment was 57.24 (SD=5.82) and the mean STEQ score was 37.49 (SD=11.04). Analysis with Spearman’s Rho indicated that level of AM (PACI-O) Index was not significantly related to the degree offenders were rated to have engaged in the ETS treatment programme (n=51, r=.070, p>0.05, 1-tailed).

Sample split by population

When split by population, it was found that level of general prison population’s (n=31) AM (PACI-O) Index was significantly positively correlated with the degree to which they were deemed to have engaged in treatment by the treatment tutors (r=.302, p<0.05, 1-tailed). However, participants in the sex offending population’s (n=20) AM (PACI-O) Index did not significantly correlate to their level of treatment engagement (r=.180, P>0.05, 1-tailed).

6.3.2 The predictive validity of the LH/P factor of the PACI-O – H2

The combined prison population samples

There were 51 Participants in the analysis. The minimum possible score was -30 and a maximum score of 40. The lowest score obtained was 0 and the highest score was 26.67. Tests of normality indicated that the data was skewed with several outliers. There were 6 outliers in total and it was decided that the outliers represented the natural spread of data hence they were not brought into line with the other scores. Transformation did not improve the data, therefore the decision was to use non-parametric analysis instead. For the
51 participants involved in this analysis the mean LH/P score was 13.55 (SD=5.64) and the mean STEQ score was 37.49 (SD=11.04).

Analysis with Spearman’s Rho indicated that level of LH/P was significantly negatively related to the degree to which offenders were rated by tutors to have engaged in the ETS treatment programme (n=51, r=-.341, p<0.05, 1-tailed).

*Sample split by population*

When split by population, it was found that level of general prison population’s (n=31) LH/P score was significantly negatively correlated with the degree to which they were deemed to have engaged in treatment by the treatment tutors (r= -.401, p<0.05, 1-tailed). However, participants in the sex offending population’s (n=20) LH/P Index score did not significantly correlate to their level of treatment engagement (r=-.330, P>0.05, 1-tailed).

6.3.3 *Using the PACI-O rating scales minus prison or reoffending items. The Personal Aspirations and Concerns Inventory – for Offenders (No Prison/Re-offending scales; PACI-O (No P/R) index*

As it was suggested by the internal reliability testing (chapter 4) that the PACI-O scales would be a more reliable measure of treatment motivation when they did not contain items pertaining to prison and re-offending, an analysis was also run using the summed mean ratings on importance, likelihood, control, happiness, commitment and knowledge scales only – the (PACI-O (No P/R) Index.

When the (PACI-O (No P/R) scores were used in the analysis, they were not found to be significantly correlated to the general prison populations STEQ score (r=0.17, p>0.05, 1-tailed) or the sex offending populations STEQ score (r= 0.30, p>0.05, 1-tailed).
6.3.4 Comparing adaptive motivation before and after treatment – H3

The combined prison population samples

There were 46 participants’ in this analysis (not all of the participants who had a time 1 AM (PACL-O) Index score had a time 2 AM (PACL-O) Index score due to treatment drop-outs or offenders lost to follow-up). The sample as a whole, had a mean pre-treatment AM (PACL-O) score of 57.22 (SD=6.02) and following treatment the mean AM (PACL-O) score was 59.27 (SD=5.91). Offenders’ AM (PACL-O) score was significantly higher following ETS treatment than it was before (z= -2.80, P<0.01, 1-tailed), with an effect size of d= 0.34 in the desired direction.

Sample split by population

Figure 17 overleaf shows the AM (PACL-O) Index score for both the general prison and sex offending population before and after ETS treatment. When split by population, the general prison population had a mean AM (PACL-O) Index score of 59.38 (SD=5.7) before treatment and a mean AM (PACL-O) score after treatment of 61.82 (4.89). The increase in AM (PACL-O) score was significant for the general prison population (z=2.61, P<0.01, 1-tailed), with a small to medium effect size in the desired direction, d = 0.45.

The sex offending population had a mean pre-treatment AM (PACL-O) Index score of 54.15 (SD=5.03) and a post-treatment AM (PACL-O) score of 55.66 (SD=5.43). However, the increase was not significant for the sex offender population (z=1.16, P>0.05, 1-tailed), but a small effect size was witnessed in the desired direction, d= 0.28.
Figure 17 – The AM (PACL-O) Index score for offenders before and after ETS treatment

6.3.5 Comparing LH/P before and after treatment – H4

The combined prison population samples

The mean for the sample as a whole before treatment was 14.02 (SD=5.50) and after it was 9.63 (SD=9.63). This was a significant reduction in LH/P score following treatment ($z=-3.58$, $p<0.001$, 1-tailed) with a medium effect size of $d=0.55$ witnessed.

Sample split by population

When split by population, the mean for the general prison population before treatment was 15.68 (SD=5.57) and after treatment it was 8.76 (SD=3.32). This was a significant reduction in LH/P ($z=-3.43$, $p<0.001$, 1-tailed), with a large effect size witnessed, $d=1.50$. For sex offenders, before treatment, the mean score was 11.71 (SD=4.61), and afterwards it was 10.85 (SD=4.37). This was not a significant decrease in LH/P ($z=-1.02$, $p>0.05$, 1-tailed), but a small effect size in the desired direction was witnessed, $d=0.19$. Figure 18 below shows the LH/P score for both the general prison and sex offending population before and after ETS treatment.
6.4 Discussion

6.4.1 Summary

The aim of the current study was to assess the predictive validity of the PACI-O factors as a measure of offender motivation to engage in a treatment programme. It was found that the level of adaptive motivation an offender presents with before treatment is related to the degree to which they are deemed to have engaged in a treatment programme by ETS tutors. This finding was true for general prison population but not sex offenders. For the general prison population, the higher the degree of LH/P before treatment, the lower they were rated as engaging in ETS. This was not found for the sex offenders. This suggests that the PACI-O may have utility to be a measure of offender treatment motivation for use with adult male offenders in the general prison population. The current study supports the assumption that the PACI-O has predictive validity with some offenders. Casey et al. (2007), state measures that purport to assess readiness in offenders such as the PCI-OA (Sellen et al. 2006) were not derived from a model of offender readiness, and their predictive validity has yet to be established. This study has addressed the criticism of a lack of predictive validity.
Additionally, as expected, the PACI-O measured motivational shifts following a treatment programme that aims to equip offenders with the skills and capabilities to achieve their goals in pro-social ways. It was found that adaptive motivation increased and LH/P decreased as a function of ETS for the general prison population sample. However, despite a relative increase and decrease in the desired directions, the same finding was not found for sex offenders.

6.4.2 Adaptive motivation and treatment engagement

Adaptive motivation is characterised by feelings of high likelihood of goal attainment, expected happiness at goal attainment, commitment to goal pursuit, knowledge on how to achieve goals, control over goal achievement, goal importance, and the view that prison will help with goal achievement. Adaptive motivation may be particularly useful with offenders due to its predictive validity with other populations (Cox et al., 2000; Cox & Klinger, 2002, Cox et al., 2002). Longitudinal studies next need to be undertaken with an offending population to assess if this increased adaptive motivation does translate as increased readiness to change and result in real life behavioural changes such as a reduction in recidivism. However, caution must be warranted due to 'readiness to change' in Cox et al.'s study being measured with the URICA. Despite regularly being used, there exists limited research on the efficacy of the stages of change model with offending populations (McMurran, 2004; McMurran et al., 2006) therefore the URICA may lack merit as a measure of offender motivation (McMurran et al., 1998, McMurran, Theodosi, & Sellen, 2006; Casey, Day & Howells, 2005). Further studies with validated models of offender readiness to change are required.

It was hypothesised that the PACI-O scales were most reliable when they excluded questions pertaining to prison and re-offending behaviour. However, it was found that without the prison rating scale, adaptive motivation was not related to treatment
engagement. Thus, whether offenders feel that prison will help their goals appears to add a predictive quality with regard to whether the offender will engage in treatment. Whether an offender believes that prison (and presumably a prison treatment programme) could help them achieve their goals may depend on whether their personal goals are congruent with the treatment goals. As noted, it is necessary to make sure that treatment is matched to offenders’ current concerns and needs (McMurran & McCulloch, 2007). Howells & Day (2003) argued that if the goals of treatment are not congruent with the offender’s personal goals then it may present an impediment to readiness to change. Thus there may be merit in helping offenders see how treatment programmes may help them to meet their goals.

6.4.3 Learned Helplessness/Powerlessness and treatment engagement

Offenders who score high on the LH/P feel their goals are important, they are committed and they understand goal achievement would bring happiness and re-offending in the future will interfere. However, they also feel that they lack control, think their goals are unlikely to be achieved and think prison (and presumably prison treatment programmes) won’t help with goal attainment, and rather it will interfere.

Patients who feel that treatment is unlikely to help may feel a sense of demoralisation that results in less motivation to engage in treatment (Drieschner el al., 2004). One of the hypothesised internal determinants of treatment motivation is outcome expectancy, which includes the related concept of self-efficacy (Drieschner et al., 2004). In the current study, offenders who score high on LH/P believe that prison is unlikely to help their life goals and instead is likely to interfere; they also feel a lack of control over goals and believe such goals are unlikely to be realised. Thus, LH/P may be able to identify problems with the internal determinants that underpin motivation for treatment.
Despite caution being warranted with this factor - due to low internal reliability- the LH/P Index has shown a degree of predictive validity which could be used to identify offenders’ motivational problems. Under the MORM component of volition, Ward et al., (2004) states an important aspect of volition is the belief that one is capable of choice and has an element of control over important personal outcomes. As noted, as well as volition being the formation of an intention to pursue a certain goal (and the implementation of a plan to achieve that goal) aspects of volition also include the belief that one is capable of exercising choice and can directly control important personal outcomes (Ward et al., 2004). The LH/P index may highlight impediments to some of the aspects of volition. Volitional processes are part of the motivation process that may need changing in counselling (Klinger & Cox, 2004c). Thus, such maladaptive profiles could be targeted by a Systematic Motivational Counselling (SMC; Cox, Klinger & Blount, 1991) type of intervention. The development of an SMC type of intervention for offenders using the PACI-O as a foundation is an important future development (see previous chapters for more details on SMC).

It is important that offenders with LH/P are identified and interventions targeted when the opportunity presents at the pre-treatment stage. As previously stated, Laws (2000) argues that feelings of powerlessness may lead an offender to compensatory behaviour where they blame other people and start to engage in behaviour to gain power and control. LH/P is viewed as maladaptive motivation and may be problematic. It is negatively related to adaptive motivation and adaptive motivation is associated with readiness for treatment and positive treatment outcomes (Cox et al., 2000; Cox & Klinger, 2002; Cox et al., 2002). Therefore, LH/P may be a problem with motivation that is associated with a lack of treatment readiness, poorer treatment outcome and a return to criminal behaviour. This indicates that this factor requires attention in future studies.
The current study was a preliminary exploration of the newly emerged factor. At present it lacks internal reliability and the positive and negative loadings on the factor mean that interpretation of changes on this scale are hard to understand. For example, did treatment indeed lead to an increase on the control, likelihood and prison helping scale which resulted in lowered LH/P, or did treatment simply reduce the positive loading items such as importance and happiness ratings (as this too would lead to reductions in LH/P due to the way it is currently scored)? The former would clearly be the desired outcome of treatment. Further clarification and refinement of this factor and resulting Index is warranted in future research, especially given its potentially important implications.

6.4.4 The PACI-O and sex offenders

In the current study, the PACI-O did not display any significant predictive validity with the sex offending sample. All the results were in the desired direction, however, they failed to reach statistical significance. This could be due to the sex offending sample being smaller than the general prison population. It may be the case that a larger sample could see the results become significant with this population.

Another explanation is that PACI-O is not a measure of motivation with sex offenders. Perhaps the PACI-O does not accurately gauge the issues that are pertinent to sex offender treatment motivation. This highlights the importance of not automatically generalising an instrument from one population to the other without empirical testing. Another alternative is that the PACI-O did measure treatment motivation with sex offenders, however other internal or external conditions meant that there was not a direct linear correlation between treatment motivation and treatment engagement. One of the proposed internal determinants underlying motivation for treatment is treatment suitability (Drieschner et al., 2004), thus if treatment is not well matched to the participants, then motivation for treatment could be undermined. To be ready for treatment, the offender
must be motivated and find the treatment relevant (Ward et al., 2004). It has been found that cognitive-based programmes can reduce sex offender recidivism by 39% (Robinson, 1995), therefore programmes such as ETS may have utility with sex offenders. Nevertheless, it could still be advantageous to assess the use of the PACI-O with offenders who are attending specialised sexual offender programmes which address their sexual offending needs.

The ETS programme failed to lead to a rise in adaptive motivation or a reduction in LH/P for sex offenders. As noted, adaptive motivation is associated with readiness to change in other populations (Cox et al., 2000) and LH/P may be an impediment to treatment engagement and change. The predictive validity of adaptive motivation with an offending population requires attention, however, further investigation into the failure of ETS to lead to improved motivation is sex offenders warranted.

Despite these concerns, the sex offenders were deemed to have engaged adequately in the ETS programme (more, but not significantly so, than the general prison population). Chapter 7 of this thesis will discuss impression management issues with sex offenders that could have led to the failure of the PACI-O to successfully assess offender treatment motivation and treatment engagement. However, it was concluded that the current study is too preliminary and small to lead to concrete conclusions. These suppositions are just speculation until further work is undertaken.

6.4.5 PACI-O uses

The current study was successful in accruing initial support for the assumption that the PACI-O has predictive validity and, subject to further work, may be able to predict which offenders are more likely to engage in treatment and which offender may have a maladaptive motivation problem that may be an impediment to engagement.
To minimise potential attrition it may be helpful to assess how likely offenders are to engage in treatment before they attend the program (Day et al., 2009). Predictions of who will engage in treatment could be of tremendous use to offender management services in terms of reducing programme drop-outs, which can lead to an increase in reoffending risk (e.g. Cann et al., 2003; Hanson & Bussiere, 1998; McMurran & Theodosi, 2007; Hanson & Harris, 2000).

One recent measure that was mentioned that purports to assess ‘readiness for treatment’ is the CVTRQ (Casey, et al. 2007) which is a measure of treatment readiness based on the theoretical MORM. However, Casey et al. (2007) found despite retaining components that relate to ‘attitudes and motivation’ and ‘efficacy’, the original items included to measure the ‘volitional’ factor did not feature in the final CVTRQ. Thus the PACI-O with its ability to measure adaptive motivation and the maladaptive LH/P profiles may prove helpful in assessing further components of motivation and volition. The PACI-O could be used alongside the CVTRQ in order to give clinicians a broader picture of an offender’s likelihood to engage in treatment in order to bring about behaviour change. The goal–based PACI-O may highlight additional volitional factors that were unable to be fully explored in the CVTRQ alone.

The PACI-O may also be a useful indicator of how treatment is progressing. It would be expected that positive motivational shifts (i.e. increased adaptive motivation and reduced learned helplessness/powerlessness) would be witnessed as the treatment programme progressed. Those that were not progressing could be assessed to see if they require motivational intervention or if there are any other impediments to them gaining all they can for the treatment programme.
6.4.6 Limitations of the current study

There are a number of limitations of the current study. Some have been mentioned above, however, others also warrant attention. Firstly, it is noted that motivation is variable and dependent on external events and internal experiences (Barrett et al., 2003; Howells & Day, 2003). Therefore, a one-off measurement at the beginning of treatment may fail to capture the natural fluctuations in a dynamic construct such as motivation. An offender could be initially motivated for treatment, but by the end of treatment (and when engagement was measured) this motivation may have waned or been strengthened. Pre-treatment motivation may only have limited utility; it may also be helpful to assess motivation (and treatment engagement) throughout the programme.

Secondly, the current study is based on the assumption that the higher the treatment engagement, the greater the treatment benefits. However, Seager, Jelicoe, & Dhaliwal (2004) found that treatment participation was not found to reduce recidivism; instead, treatment merely enables motivated offenders to concretely demonstrate their commitment to a pro-social life and not reoffend. They concluded that the most helpful post treatment criteria was simply whether the offender completed treatment or not, without attention to the quality of the offenders’ participation. They argue that such attention to treatment participation details may be ‘superfluous’ in the context of predicting re-offending. However, even if this is the case, the PACI-O may predict who will engage more, and those who are actively engaged may be less likely to drop-out.

Day et al. (2009) found that scores on a self-report readiness measure, the VTRQ, were more correlated with treatment engagement than scores obtained from the semi-structured interview version of the scale. They suggest this may be due to the need of offenders to respond in a socially desirable way when in an interview situation rather than a questionnaire, thus the validity of the interview is compromised. Therefore, the semi-
structured nature of the PACI-O may have compromised validity. However, rapport can be built with a semi-structured technique such as the PACI-O that cannot be obtained with simple self-report measures. Such semi-structured interviews may glean more rich detailed data that can utilised alongside more simple self-report. Additionally, the PACI-O interview may enhance the therapeutic alliance between the offender and offender management team. Therapeutic alliance is one of the components of treatment engagement in the MORM (Ward et al., 2004).

Another limitation of the current study is that the data were skewed and in some case contained a number of outliers. These were dealt with as conservatively as possible and non-parametric tests used where it was deemed necessary. However, despite the results being viewed as the natural spread of data, more robust analysis is required on larger samples in order to determine the current results were not spurious as a result of the poor psychometric quality of the data.

The final limitation is that the measure of treatment engagement used was quite narrow in scope. Treatment engagement is likely to be multi-faceted; therefore it is unlikely that a 5 item questionnaire could adequately capture this construct. Nevertheless, the STEQ did correlate to a more comprehensive reliable and valid measure of treatment engagement: The Group Engagement Questionnaire (MacGowan, 1997), thus is was deemed to have validity for the current study (see chapter 5 for details). The current study also measured treatment engagement in the ETS programme. This limits the generalisability of the current findings. However, cognitive skills programmes are offered to a large number of offenders (Casey et al. 2007); therefore the current study may have some ecological validity in other settings.
6.4.7 Future studies with the PACI-O

Due to the correlational nature of the current study, causal direction cannot be established. To investigate whether the PACI-O can be a predictor of treatment engagement, larger samples are required to conduct a multiple regression analysis. The predictive validity of the PACI-O could be tested alongside other predictors of treatment engagement (such as the CVTRQ) in order to develop models of treatment motivation and engagement.

Drieschner & Boomsma (2008) suggests that the best measure of treatment engagement may be an amalgamation of self-report and therapist ratings. The current study only used ratings from the therapist (because the STEQ had been through a validation process that the prisoner treatment engagement questionnaire (PTEQ) had not). In the future, the PTEQ should be put through the validation process and offenders scores amalgamated with the STEQ in order to see if this improves the predictive validity of the PACI-O.

In previous studies, motivation structure has not been shown to be correlated with recidivism (Sellen et al., 2009). Rather the PACI-O may measure motivation for a treatment programme, as opposed to directly measuring motivation for change. This is congruent with the treatment interaction hypothesis that states treatment motivation impacts on treatment engagement and treatment affects outcomes (DeLeon et al., 2000). However, the changes made to the PACI-O mean there is renewed potential to directly re-assess the relationship between motivation structure and recidivism.

It is important to distinguish the difference between motivation for treatment (engaging in the treatment programme) and motivation for behaviour change (ceasing offending). McMurran et al. (2006) note that despite being related, motivation for engagement in therapy and motivation to change are not the same thing. Some offenders
are motivated for change but not treatment and some for treatment but not change. However, motivation for treatment is often seen as a proxy for motivation for change, i.e. if an offender is willing to engage in treatment and address their offending behaviour then we can assume the offender will detest from offending in the future (Campbell et al., in press).

It must be acknowledged that the PACI-O as a measure of motivation is most internally reliable when it only omits questions pertaining to prison and reoffending. It could transpire that the PACI-O is used as an assessment of offender motivation that asks offenders to rate goal importance, likelihood, control, happiness, knowledge and commitment. Then the prison and re-offending scales are used solely as discussion points to get offenders thinking about the impact of the criminal justice system and future re-offending on their goals. However, despite the lower internal reliability level, the prison and re-offending scales added to the predictive quality of the PACI-O. This will need to be taken into consideration in the future.

Engagement in treatment is often seen as an intermediate goal before change in criminogenic need occurs (Ward et al., 2004) with increased engagement leading to more favourable treatment outcomes (Simpson, Joe, Rowan-Szal & Greener, 1995). Thus, those who engage more in treatment may be expected to have better outcomes. Some of these issues have been touched upon in this thesis but a larger scale investigation is warranted. The relationship between motivation to engage in treatment and actual treatment engagement is not thought to be directly linear due to patients lacking the capacity to do what the treatment approach requires (e.g. cognitive, neuropsychological reasons; Drieschner et al.). Treatment engagement is hypothesised to predict treatment outcome. However, Drieschner et al. note only a modest relationship should be expected as treatment outcome also depends on the effectiveness of the treatment approach and the degree and persistence of the patient’s problems.
The exact causal chain and mechanisms for change need close examination in order to enable clinicians to boost the effectiveness of offender treatment programmes. Mediation analysis could examine adaptive motivation and its effect on post treatment change (taken to be a reduction in criminogenic need then subsequent behaviour change) via the medium of treatment engagement. First it would need to be established if there is a relationship between adaptive motivation (as measured by the PACI-O) and post-treatment changes. If so, it may then be informative to see if this process occurs, or is mediated, via engagement in a treatment programme. From this orientation, treatment engagement occurs as a result of adaptive motivation and this leads to post-treatment outcome.

Moderation analysis could also occur to see if those with high adaptive motivation make post treatment changes depending on if they engage in a treatment programme. It could be that an offender may have high adaptive motivation but if he does not engage in treatment (as the MORM states, there are a number of reasons why an offender may not engage in treatment) there will be a reduction in the post-treatment changes. High adaptive motivation may only be useful to offenders if they are able to engage fully in treatment. Therefore, other areas of treatment readiness may need to be explored.

As noted, during psychometric exploration of the ARCQ, Williamson et al. (2003) proposed two ways of examining its predictive validity based on two different orientations. The first suggested was that readiness to change moderates treatment effectiveness and is therefore seen as a responsivity measure. Thus those with high readiness to change will reap most treatment benefits. Alternatively, readiness to change could be viewed as a mediator between treatment and change and reflects a mechanism for change. Thus, readiness to change occurs as a result of treatment and this subsequently leads to outcome change. They accrued more support for the first model where higher treatment readiness before treatment is related to treatment effectiveness. Thus, treatment was found to reduce
anger more in those who had high readiness scores before treatment. They found no support for the view that a change in readiness as a result of treatment leads to changes in outcome measures. In the current study, the PACI-O was tested from the viewpoint that those with higher motivation for treatment (more AM and less LH/P) would engage more in treatment. However, in the future, studies should look at whether adaptive motivation could be the mediator between treatment engagement and change i.e. the increased motivation from treatment leading to positive treatment outcomes. As stated, by Casey et al., (2007) volition may be a mediating function between programme engagement and program performance. It is clear that large scale studies need to be conducted to understand the mechanisms that connect pre-treatment motivation, treatment engagement, mid-treatment motivation, treatment outcomes (change in criminogenic need) and lasting behaviour change.

6.4.8 Conclusion

Treatment motivation is thought to predict treatment engagement (Drieschner et al., 2004; Hiller et al, 2002) and the PACI-O has shown predictive validity as a measure of treatment motivation. The PACI-O could be useful with offenders for a number of reasons. Firstly, it has potential as a motivational assessment (either before treatment to indicate who is most ready for treatment or to measure progress in treatment); it may also identify those that require additional assistance before attending a treatment programme.

Inappropriate referral can result in a lack of treatment engagement or treatment drop-outs (Day et al., 2009). Pre-treatment assessment with the PACI-O could help practitioners identify potential problems in an offender’s goal or motivational structure and provide motivational work before therapy. The PACI-O could also be a useful means of exploring the volitional based aspects of readiness to change. However, the above assumptions may depend on the prison population under study. The current study accrued
more support for the PACI-O as a measure of motivation with the general prison population than with a sex offending sample.

However, if the PACI-O could be used as a measure of motivation this could mean a reduction in the risk of non-completion (resulting in a higher risk of recidivism) because the PACI-O may more accurately select offenders that are most suitable for treatment. Additionally, it could identify those offenders who need additional help before they are ready to fully reap the rewards of a treatment programme.

In the current study, motivation for treatment was examined in isolation and the results discussed in light of its place within the broader construct of treatment readiness. While examining the construct of readiness may lead to a greater understanding of treatment engagement, it is important to glean a greater understanding of each facet of readiness. This will allow potential problems in motivation for treatment to be identified in order to be addressed before treatment. It is clear that while motivation for treatment and change may be important for treatment engagement (covered under the volition factor in the MORM), it is not the only condition required for engagement. Nevertheless, it represents an important factor and assessments of motivation allow the identification of possible impediments to treatment engagement.

The current study was assessed the predictive validity of the motivational factors derived from Cox & Klinger’s motivational model (1988, 1990) with offenders. The PACI-O displayed potential as a measurement of offender motivation to engage in therapy. Effective targeting of interventions is likely to lead to reductions on demands of limited budgets and larger reductions in recidivism (Williamson et al., 2003). Hence, the PACI-O may be of considerable use to offender managers.
Chapter 7 – The Personal Aspiration and Concerns Inventory – for offenders (PACI-O) as an enhancer of offender motivation for treatment and subsequent change

Summary

A Randomised Controlled Trial (RCT) with a sample of 111 offenders was carried out to evaluate the effectiveness of the Personal Aspirations and Concerns Inventory – for Offenders (PACI-O) to enhance offender motivation for treatment in order to boost treatment engagement and enable offenders to gain maximum treatment benefits. The additional focus on personal life goals before treatment may prove motivating to some offenders.

The PACI-O is able to identify three characteristic motivation profiles: adaptive motivation, learned helplessness/powerlessness and lack of direction. Adaptive motivation may be of particular interest due to its predictive validity with other populations (Cox, Blount, Bair & Hosier, 2000 Cox et al., 2002).

RCTs are often seen as the most robust of research design, therefore it was deemed the most effective method to assess the PACI-O. The study was classed as a feasibility study in order to assess the potential to conduct a larger scale study on the motivation enhancing potential of the PACI-O in a prison setting.

Evidence emerged that suggested the PACI-O interview before treatment could enhance motivation for treatment which could result in increased treatment engagement and adaptive motivation for general prison population offenders. It also emerged those sex offenders who completed the PACI-O before treatment had a reduction in impulsivity levels following treatment compared to sex offenders who attended treatment as usual.
These results are discussed in relation to the potential of the PACI-O to be utilised by offender management teams as a pre-treatment motivation intervention for offenders attending a treatment programme. Limitations of the research and suggestions for future work with the PACI-O are also suggested.

7.1 Introduction

7.1.1 Offender treatment

Cognitive-behavioural treatment that adheres to the principles of the Risk, Need and Responsivity (RNR) are the most successful in reducing re-offending risk in offenders (Andrews, Bonta & Hoge, 1990). Within a RNR framework, the main aim of rehabilitation is to minimise harm and risk to the community rather than improve the offender’s quality of life (Marshall et al., 2005). Another theory of offender rehabilitation that is gaining attention in offender rehabilitation is the Good Lives Model (GLM; Ward & Brown, 2004; Ward & Stewart, 2003). This introduces the construct of ‘primary human goods’ which are described as “states of affairs, states of mind, personal characteristics, activities or experiences sought for their own sake and which are likely to increase psychological well-being if achieved” (Ward, Vess, Collie, & Gannon, 2006, p.382). It is proposed that the GLM can incorporate ideas from the RNR model (Ward, Melser and Yates, 2007). A risk management approach needs to occur in conjunction with a strength-based approach (Marshall et al., 2005).

7.1.2 Enhanced Thinking Skills

The thinking behind the Enhanced Thinking Skills (ETS) treatment programme is that offenders are unable to reach their goals in pro-social ways due to their thinking styles and attitudes (Post Programme Report for the Enhanced Thinking Skills Programme, 2005). ETS, and other cognitive-based programmes, look at risk requirements and dynamic risk factors (treatment needs). The treatment targets of ETS are: impulse control, cognitive
style, social perspective taking, values, critical reasoning and interpersonal problem solving. ETS aims to help offenders practice new ways of thinking and behaving that will lead to a reduction in the chance of recidivism.

7.1.3 Offender motivation for treatment

The examination of offenders’ motivation to engage in treatment and change is paramount as the successful completion of a treatment programme is dependent on maintaining motivation throughout the programme (Barrett, Wilson & Long, 2003), and without motivation to complete treatment the offender is at risk of dropping out (McMurran & McCulloch, 2007). Dropping out of treatment has shown to be connected to an increased risk of re-offending (Cann, Falshaw, Nugent, & Friendship, 2003; Hanson & Bussiere, 1998; McMurran & Theodosi, 2007; Hanson & Harris, 2000).

Dynamic factors associated with dropping out of treatment are important as they further current knowledge of what variables are consistently related to treatment retention, and can therefore have implications for treatment improvement (Pelisser 2007). Lack of motivation is a reason why some offenders drop out of treatment (Beyko & Wong, 2005; McMurran & McCulloch, 2007; Pelisser, 2007). Motivation is a dynamic and changeable factor, therefore there exists opportunities for amending and enhancing offender motivation through intervention.

McMurran, Theodosi and Sellen (2006) suggest that because non-completion of treatment may have a damaging effect it is important to maintain motivation throughout therapy for the completion of treatment programmes. Additionally, it may be beneficial to boost offender motivation before a treatment programme to ensure that offenders who begin treatment are fully motivated and ready to engage in the programme in order to glean maximum treatment effects. Lee at al. (2006) reduced the drop-out rates of sex offenders in treatment by enhancing the offenders’ motivation for treatment via the provision of
individual treatment before they were to attend group treatment (in order to get the offenders to accept they needed to work on their problems). Resources could be targeted at those offenders who display known risk factors for dropping out of treatment (for example, aggression, hostility and rule violating behaviour) in order to encourage participation and retention in the programme. Attrition needs to addressed appropriately so that those who require treatment the most will receive the treatment they need (Beyko & Wong, 2005).

7.1.4 Offender motivation for treatment, treatment engagement and treatment outcome

Treatment motivation is defined as the patient’s motivation to engage in their treatment. It is thought to predict treatment engagement, which is defined as the patients’ “behavioural engagement as required by the particular treatment approach” (Drieschner, Lammers & Van Der Staak, 2004, p 1130). It is hypothesised that motivation to engage in treatment depends on six cognitive and emotional internal determinants. The hypothesised internal determinants of treatment motivation are level of suffering, outcome expectancy, the perceived costs of treatment, perceived suitability of treatment, perceived external pressure and problem recognition (Drieschner et al., 2004).

Motivation for treatment is also thought to be influenced by external or general patient factors (for example, circumstances, demographic factors) and is mediated by the internal determinants. Treatment engagement is hypothesised to predict treatment outcome. However, Drieschner et al. note only a modest relationship should be expected as treatment outcome also depends on the effectiveness of the treatment approach and the degree and persistence of the patient’s problems. Motivation for treatment, treatment engagement and treatment outcome are likely to have multiple determinants.
Motivation for treatment is just one of the conditions necessary for treatment engagement and change, but it warrants attention and study as it is a dynamic factor that can be manipulated through intervention.

7.1.5 Readiness to change

In order to understand, assess and enhance offender motivation for treatment engagement it may be necessary to look at the wider constructs it is associated with. Recent focus has turned to the concept of offender ‘readiness’ and the Multifactor Offender Readiness Model (the MORM; Ward, Day, Howells & Birgden, 2004). Treatment readiness refers to the presence of internal and external conditions that are likely to promote treatment engagement and therapeutic change (Howells & Day, 2003) and readiness is thought to promote engagement in therapy (Casey, Day, Howells & Ward, 2007). The MORM states that readiness is likely to be a dynamic, rather than a static phenomenon, and Casey et al. (2007) postulate that the degree to which treatment engagement is sustained is dependent on intention which can be affected by internal and external factors at any stage, either weakening or strengthening it. Therefore they hypothesise that ‘volition’ is not just an aspect of motivation that helps to formulate intent; but rather, it is also the mechanism whereby the motivation for change is maintained.

7.1.6 Boosting offender motivation for treatment

Offenders who are found to have low motivation for treatment could benefit from specialised interventions either administered as a pre-treatment motivation enhancer or as a brief motivation enhancer during treatment. This could help prevent offenders dropping out of the programme and could also ensure offenders were fully engaged in order to obtain maximum benefits from treatment. Readiness training activities at the beginning of therapy may help clients become more involved in treatment (Sia, Dansereau & Czuchry, 2000). Currently, there is no agreed universal method of enhancing offender motivation for
treatment. However, there are a number of hypothesised targets and processes that could be successful.

Motivation is variable and dependent on external events and internal experiences (Barrett et al., 2003; Howells & Day, 2003). Therefore, it is important to attend to the factors that could prove to be an obstacle to treatment motivation. Internal determinants can provide treatment targets for motivational clinical interventions (Drieschner et al., 2004). According to Drieschner et al, issues such as outcome expectancy and problem recognition could be addressed to ensure that do not impact negatively on motivation. Howells & Day (2006) also suggest attending to personal characteristics that are likely to impact on treatment engagement. This could mean targeting the internal conditions of treatment readiness such as cognitive or affective factors.

Gudjonsson, Young & Yates (2007) note that three new scales, the Patient Motivation Inventory; Patient Perception Questionnaire and Patient Attitude Questionnaire (Gudjonsson et al, 2007), can be used by offender managers to identifying attitudes and perceptions that may be a hindrance to motivation to engage with treatment and change. Once identified, these problem areas can be targeted for change by the multidisciplinary team and incorporated into the patients care and treatment programme (Gudjonsson et al., 2007).

Deci and Ryan (2000) suggest intrinsic motivation should be enhanced during treatment as intrinsic motivation is associated with better treatment outcomes and long-term change (Deci & Ryan, 2000). Offenders who are extrinsically motivated may drop-out of treatment once the coercive influence is removed (Day, Tucker & Howells, 2004).

Howells & Day (2003) note that, in theory, readiness for treatment may be enhanced through a motivational interviewing technique (Miller & Rollnick, 1991). Motivational interviewing is a client-centred directive style of counselling to help clients
resolve ambivalence and elicit behaviour change (Miller & Rollnick, 1991) and is based on a stage model. McMurran (2009) states that motivational interviewing is used with one of three main purposes: to enhance engagement in treatment and retention, to improve motivation for change and finally to change behaviour. However, the utility of the stage model with offenders has been questioned in recent years (e.g. McMurran, 2004; McMurran et al., 2006).

Howells & Day (2003) stated an impediment to effective treatment is inadequate attention to the context of personal goals. For some offenders, it could be that the offending behaviour aids personal goal achievement (for example violence could increase social status or anger could remove obstacles in the way of goal achievement). Therefore, if the goals of treatment are not congruent with the offender’s personal goals then this may prove to be an impediment to readiness to change. Attending to personal goals may be an imperative aspect of addressing readiness for treatment impediments.

7.1.7 The Personal Aspirations and Concerns Inventory – for Offenders

The goal-based Personal Aspirations and Concerns Inventory – For Offenders (PACI-O; appendix 6) is a potential enhancer of offender treatment motivation (see chapter 2 for full details of the PACI-O). The PACI-O can identify an adaptive, maladaptive (learned helplessness/powerlessness; LH/P) and lack of direction motivation profile in offenders (see chapter 4 for details of the psychometric properties and details of the motivation profiles). Evidence in chapter 6 suggested that the PACI-O could be a measure of offender treatment motivation (with general prison population offenders, but not with sex offenders). However, there is also evidence that the PACI-O may have motivation enhancing qualities.

Using goals as part of assessment means utilising personally meaningful and relevant material (Karoly, 1993). Thus, focusing on important life goals may encourage
offenders to engage more with the practice and intervention. The PACI-O also requires offenders to consider the impact of their incarceration in prison and any future re-offending on the achievement of their important life goals.

Jenkins-Hall (1989) notes the concept of decision making is relevant to all aspects of the therapy process from abstinence to relapse and it installs hope, self-efficacy and self-control. Increasing an offender's self-efficacy and agentic thinking may facilitate treatment benefits and as a result reduce reoffending risk (Marshall et al., 2005). Cox & Klinger (2004c) note that asking clients to make an inventory of gains and losses from continuing or ceasing a target behaviour (in this case offending) is a useful motivation enhancing technique when completed early in the counselling process. It may help resolve any ambivalence the offender may have about entering a treatment programme and changing their offending behaviour.

More support for the potential of the PACI-O to act as a motivation enhancer comes from a small pilot study with sex offenders. Theodosi & McMurrann (2006) adapted the PCI-OA (the PACI-O's predecessor) to work with sex offenders who were refusing treatment (PCI-OA [TR]) and noted that treatment refusers underwent a positive motivational shift following the PCI-OA (TR) interview.

A strength of using the PACI-O with offenders is its potential to act as a foundation for a technique called Systematic Motivational Counseling (SMC; Cox, Klinger & Blount, 1991). This technique would use the goals identified in the PACI-O as a framework for therapy. This technique when conducted on an individual and group basis has shown favourable results with a number of populations including substance abusers, and persons with psychosis and personality disorders (Cox & Klinger, 2004c).

Despite The PACI-O not being a treatment or therapy per se, it offers offenders the opportunity to breakdown large insurmountable goals into smaller more manageable
issues. The active ingredient in the PACI-O is thought to be the additional focus on personal goals before the completion of a standardised treatment programme. Additionally, a goal based approach, such as the PACI-O, is useful due to its ability to operationalise the GLM for practical application and empirical investigations (McMurran & Ward, 2004). The PACI-O may be a means of practically exploring the GLM. As noted, the GLM is a popular theory but it is criticised for lacking empirical evidence (Andrews & Bonta. 2003).

The PACI-O may hold potential as an enhancer of offender motivation to engage with treatment and, as a result, gain maximum treatment benefits. The brief PACI-O interview can be carried out by staff with no formal forensic training and thus may prove to be a useful cost-effective pre-treatment motivation enhancer. The additional focus on life goals plus the practical skills that are taught in a manualised treatment programme may combine to enhance offender motivation and make lasting changes to their lives.

7.1.8 Aims of the current study

Evidence suggests that the PACI-O may have motivation enhancing properties. The current study aims to assess if the PACI-O interview completed before attendance at a prison-based treatment programme (ETS) can boost motivation and lead to increased treatment engagement and improved treatment benefits (in the form of increased adaptive motivation and a reduction in a dynamic risk factor thought to be related to offending risk). The PACI-O was assessed against its effect on behaviours associated with treatment engagement that lead to a reduction in re-offending risk (which is the target of the ETS programme).

It is hypothesised that the increased adaptive motivation (thought to be related to positive treatment outcomes in other populations; e.g. Cox et al., 2002) and the reduction in the dynamic risk factor would come about due to the increased treatment engagement – as per the treatment interaction hypothesis (DeLeon, Melnick, Thomas, Kressel, & Wexler,
2000). The effectiveness of the PACI-O as a motivation enhancer is judged on its ability to boost treatment engagement, in order to lead to increased adaptive motivation and reductions in criminogenic need.

While a previous study assessed the ability of the PCI-OA to motivate treatment refusers to seek information on a treatment programme (Theodosi & Mcmurran, 2006), the PCI-OA was never fully explored as a motivation enhancer that could lead to treatment engagement. The current study is the first designed to empirically test the ability of the PACI-O (the new generation of PCI-OA) to increase offenders’ motivation to engage in a treatment programme in order to boost treatment effectiveness.

7.2 Method

7.2.1 Design: The Randomised Controlled trial

Randomised controlled trials (RCTs) are often seen as the ‘gold standard’ of research designs, therefore a RCT was deemed the best method to assess the potential of the PACI-O as a treatment motivation enhancer.

During the RCT, offenders were randomly assigned to one of two groups: the experimental or control condition. In the experimental condition, offenders completed the PACI-O before attending the usual care ETS treatment programme. Offenders also completed the PACI-O as a follow-up outcome measure after treatment. The control condition attended usual care ETS treatment only. The control condition offenders only completed the PACI-O as a follow-up outcome measure after ETS. More details of the RCT methodology can be found in chapter 3.

7.2.2 Outcome measures

Because many of the offenders would not have been released by the time of data analyses (or would not have been out on release for a considerable amount of time), the
outcome measure of recidivism was deemed unsuitable for the current study. Therefore, the outcome measures focussed on short-term/intermediate measures of treatment success. It was important that the outcome measures were hypothesised to be related to recidivism (albeit indirectly).

The primary outcome measure was to assess improvements in motivation structure in the form of increased adaptive motivation in offenders who completed the PACI-O before treatment compared to those who attended treatment as usual. As noted, adaptive motivation is associated with readiness to change in substance abusers (Cox et al., 2000). Therefore, it may be informative to assess if the PACI-O, completed as a pre-treatment motivation enhancer, leads to a hypothesised increase in offenders' readiness to change their offending behaviour.

A secondary outcome measure is the degree to which offenders engaged in the ETS programme. Treatment engagement was chosen as a meaningful outcome measure because motivation is needed to engage in treatment (Barrett et al., 2003) and engagement in treatment is needed for completion (Macgowen & Levenson 2003). As noted, completion of the treatment programme is necessary in order to reap the full rewards and to avoid the damaging ramifications of dropping out (e.g. Cann et al., 2003; Hanson & Bussiere, 1998; McMullin & Theodosi, 2007; Hanson & Harris, 2000). Engagement in treatment is often seen as an intermediate goal before change in criminogenic need occurs (Ward et al., 2004) with increased engagement leading to more favourable treatment outcomes (Simpson, Joe, Rowan-Szal & Greener, 1995).

Finally, post-treatment impulsivity level was chosen as an outcome measure as it is one of the behaviours (dynamic risk factors) targeted for change by ETS. The basic premise underpinning offender management programmes is the reduction of the dynamic risk factors associated with criminal behaviour, in a bid to reduce the likelihood of re-
offending (Hollin, 2008). A dynamic risk factor is a changeable risk factor (as opposed to a static risk factor such as age at first offence; Andrews & Bonta, 1998). Impulsivity is one such ‘dynamic risk factor’. Therefore, reductions on this measure were taken as a measure of treatment effectiveness and success. There are a number of criminogenic needs targeted by ETS (see chapter 4 for details). However, impulsivity was chosen over others for several reasons.

Impulsivity is a feature of normal behaviour and ‘normal’ individuals can be more or less impulsive (Evenden, 1999). However, impulsivity levels differ between offenders & non-offenders (Nugent, Geohagan, & Travers, 2005). McDougall, Perry, Clarbour, Bowles & Worthy (2009b) used reductions in impulsivity as their primary outcome measure in a large-scale RCT assessing the effectiveness of the ETS programme, because research has shown impulsivity is associated with offending behaviour (Blackburn, 1972; Eysenck & McGurk, 1980; Mak, 1991; Wong & Gordon, 1998). McDougall et al. (2009b) confirmed that the completion of the ETS programme could significantly reduce offenders’ impulsivity level. Therefore, it was logical to judge the PACI-O’s effectiveness by its ability to reduce impulsivity levels above and beyond what ETS alone can do.

7.2.3 Hypotheses

- H1 Offenders who complete the PACI-O before treatment (experimental group) will have significantly higher levels of adaptive motivation following treatment than those who attend treatment as usual (control group)

- H2 Offenders completing the PACI-O before treatment (experimental group) will engage significantly more in treatment than those who did not complete the PACI-O before treatment (control group)
H3 Offenders who complete the PACI-O before treatment (experimental group) will have significantly lower post-treatment impulsivity than those who did not complete the PACI-O before treatment (control group).

7.2.4 Further method details

Participants: Participants were 111 adult male offenders housed in a category B (general population) and C (sexual offending sample) prison in South Wales (UK). One hundred and twenty offenders were randomised, however 7 refused to take part in the study and 2 were excluded due to having previously completed the PACI-O.

The general prison and sex offending population were analysed both together and separately. Seventy two offenders from the general prison population and 39 from the sex offending population were included in the RCT. Due to missing data not all of the 111 participants’ data was analysed. See the CONSORT diagram (appendix 13) for the participant flow for each outcome measure. Every offender in the study was recruited to attend the ETS programme at their respective prison. Full details of the study participants can be found in chapter 3.

Procedure: Participants in the experimental group were interviewed using the PACI-O procedure both before (as the experimental motivation enhancing intervention) and after ETS (for follow-up outcome measure purposes). Participants in the control condition attended ETS as usual and were interviewed following treatment for follow-up outcome purposes only. The details of the procedure are documented in chapter 3.

Measures: The Personal Aspirations and Concerns Inventory- for Offenders (PACI-O). This semi-structured interview procedure is described briefly in the introduction to this chapter, in detail in chapter 2 and is shown in appendix 6. The adaptive motivation factor has demonstrated acceptable internal reliability (chapter 4). From summing the items that
load onto adaptive motivation, an AM (PACL-O) Index can be calculated. This index can be used as a measure of the amount of adaptive motivation held by the offender. See chapter 4 for details on the AM (PACL-O) index.

*The Staff Treatment Engagement Questionnaire (STEQ)*. The Staff Treatment Engagement Questionnaire (STEQ) was used to measure treatment engagement. This is a new brief 5-item therapist rated scale designed especially to measure the construct of treatment engagement in a cognitive prison-based treatment programme. Preliminary studies suggest the STEQ is a reliable and valid measure (see chapter 5 for details and appendix 11 for a copy of the STEQ). Treatment engagement is judged on evidence of behaviours that are required for the ETS programme to be successful in bringing about changes in treatment targets (reductions in dynamic risk factors). Items include asking about the offenders’ concentration, group work and assignment completion.

*Prisoner Treatment Engagement Questionnaire (PTEQ)*. A self-report version of the STEQ for offenders to rate their own treatment engagement was also used to rate treatment engagement. See chapter 5 for details or appendix 14 for a full copy of the Prisoner Treatment Engagement Questionnaire (PTEQ). Drieschner & Boomsma (2008) suggests that the best measure of treatment engagement may be an amalgamation of self-report and therapist ratings, and this may increase the predictive power of the variable. Therefore, an analysis was also conducted by amalgamating prisoner self-report ratings on treatment engagement (using the PTEQ) with those of the therapist rated STEQ.

*Eysenck’s Impulsivity Scale*. Eysenck’s Impulsivity Scale (EIS; Eysenck & Eysenck, 1978; appendix 12) is a 22 item (true/false) self-report psychometric scale that is administered to offenders both before and after they attend the ETS programme. Post-treatment scores on the EIS were used in the current study (However, the pre-treatment scores were used to make a brief comparison between impulsivity levels of the general
prison and sex offending population before starting ETS). The EIS was administered by the treatment tutors after ETS completion as is usual practice. HM Prison Service provided the EIS data to the researcher.

The EIS has been found to be a reliable and stable measure of impulsivity in offenders (Nugent, et al., 2005). McDougall et al. (2009b) also confirmed the reliability and validity (construct validity, convergent validity internal and external reliability) of the EIS with their sample of an offending population.

**Method of analysis:** The RCT suffered varying amounts of missing data on the three outcome measures. The data were too few for statistical analysis, however, where possible, unrelated t-tests were conducted to test for differences in characteristics between those that had missing data on the outcome measure and those that did not (appendix 18). Details of the handling of missing data are described below.

Unrelated T-tests were conducted (or Mann Whitney U tests where data did not meet statistical assumptions and transformation was not appropriate) on the outcome measures in the study. ANOVA was deemed inappropriate due to some data not displaying a normal distribution and consistency of reporting the results was sought. Thus the effect of the PACI-O on the sample as a whole was explored and then separate analyses looked at the effects of the PACI-O for both the general prison population and sex offending sample. A modified intention to treat (ITT) analysis was conducted.

As well as tests of significance, effect sizes are also reported. The reporting of treatment effect sizes is another popular interpretation method as it quantifies the impact of interventions (Campbell, 2005). Cohen (1992) suggests the following assumptions for considering effect sizes in the social sciences: 0.2 is generally a small effect size, 0.5 a medium effect size and 0.8 a large effect size.
7.2.5 Missing data considerations

Various levels of missing outcome data arose in the current study. This was due to either 1/ the information was lost at head office 2/ the participant dropped out of treatment (on occasion, the researcher could not interview the participant for follow-up purposes if there was a security risk, for example, the offender may have been sent to the segregation unit for bad behaviour during treatment) 3/ the participant was lost to follow-up due to transfer or release (the researcher did not have the means to follow-up offenders once they left the establishments).

One hundred and eleven participants were randomised for the RCT study, of which 16.2% had missing data on the outcome measure of adaptive motivation, 6.3 % of participants had missing data on the outcome measure of treatment engagement and 27.9% of participants had missing data on the outcome measure of post-treatment impulsivity.

The spread of missing data between both the experimental and control condition and the general prison population and sex offender sample appeared to be evenly spread overall (although some minor differences were apparent - see appendix 18) and for the most part, numbers were too few for reliable statistical analysis.

Several methods of dealing with missing data were explored. Mean substitution was deemed unsuitable due to its effects of suppressing the true value of the standard deviation and standard error (Field, 2005). Baseline Observation Carried Forward (BOCF) was not deemed suitable due to the fact it can often give rise to either liberal or conservative estimates (depending on the situation) and it can also violate the ITT principle (Kenwood & Molenberghs, 2009). A more detailed missing value analysis was considered but not conducted due to the technical nature of such routines and the variety of reasons for missing data, plus the limited time-scale of the proposed research. However, repetition of the analysis using an advanced technique in future research is recommended. A multiple
imputation technique or Bayesian analysis should be employed and the results compared to the findings of the current study.

Following a descriptive, exploratory investigation of the distribution of missing values (appendix 18), it was believed no fundamental differences between groups existed and data were mainly missing at random. It was deemed acceptable to complete the analysis only on participants who had available scores on the outcome measure. The listwise deletion of participants due to missing data will result in a loss of statistical power, but not a biased trial.

Although it was assumed that the integrity of the RCT had not been compromised due to the missing data and subsequent analysis technique, it is a point for discussion as to whether the resulting analysis really is an ‘intention to treat’ design. Due to the constraints of the prison situation meaning follow-up was not always possible for those that deviated from protocol (by dropping out of treatment or being released or transferred before follow-up), a modified ITT approach was conducted (per-protocol for the most part - the only exception is the treatment engagement study which included the STEQ data from the two participants who deviated from protocol in the experimental group, i.e., they failed to show for the PACI-O intervention). The analysis in this thesis reports the results with those scores included. The analysis was re-run excluding those scores to make it a purely per-protocol analysis of treatment engagement and it was found that results did not differ from that reported. Cross-overs were not permitted in the study (e.g. if someone in the experimental group failed to turn up to the initial pre-treatment interview then by default they could become a control [treatment only] participant). A ‘Treatment Received’ analyses was not justified during the current study for fear of bias and contamination.
7.2.6 Testing the robustness of the reported results with mean substitution for the missing values

In order to test the suitability of the handling of missing data, missing scores were substituted with the series mean (bringing the included participants to 111 for each outcome measure) and the analysis re-run (appendix 19). The results were the same as what is reported in the results section of this chapter. It is reassuring that the substitution of the series mean does not change the outcome of the trials. However, due to the large amount of missing data on some outcome measures, it was felt it was more accurate to report fully only on the participants for whom outcome data existed. Despite the additional statistical power, the level of variability will have been affected with mean substitution.

7.3 Results

7.3.1 Adaptive motivation following a treatment programme – HI

The combined sample

The post-treatment AM (PACL-O) Index score was compared between the experimental and control group. The minimum possible score on the AM (PACL-O) Index was 0 and the maximum possible score was 70. Scores in the current sample ranged from 40.00 to 69.25. The higher the score, the more the participant was deemed to have adaptive motivation (which was viewed as a positive trait).

There were 93 participants involved in the analysis and the overall mean for the AM (PACL-O) Index was 57.86 (SD=6.45). There were 46 offenders in the experimental condition and the mean AM (PACL-O) score was 59.27 (SD=5.91). There were 47 offenders in the control condition and the mean AM (PACL-O) score was 56.48 (SD=6.72). Data in both groups were found to be normally distributed (kolmogorov-Smirnov P>0.05) with no outliers.
As predicted, offenders in the experimental group had significantly higher levels of adaptive motivation following treatment than offenders in the control condition (t \(=2.12, \ p<0.05, \) 1-tailed) with a medium effect size in the expected direction, \( d = 0.44. \) Figure 19 shows the mean score of the two populations within the experimental and control conditions.

![Figure 19: Mean AM (PACI-O) Index scores across populations and conditions following ETS treatment](image)

Overall, the General prison population (N=56, Mean=59.84, SD=6.51) had a significantly higher AM (PACI-O) Index following treatment than the Sex offending population (N=37, Mean= 54.88, SD= 5.15, t= 3.894, \( p<0.001, \) 2 tailed).
General prison population

The mean for the general prison population as a whole (N=56) was 59.84 (SD=6.51). The mean for the experimental group (N=27) was 61.82 (SD=4.89). The mean for the control group (N=29) was 57.99 (SD=6.72). As predicted, the experimental group scored significantly higher on the AM (PACI-O) Index compared to the control group following treatment (t= 2.27, p<0.05, 1 tailed) with a medium effect size in the expected direction, d= 0.65.

The sex offenders

The mean for the sex offending sample as a whole (N=37) was 54.88 (SD=5.15). The mean for the experimental group (N=19) was 55.66 (SD=5.43). The mean for the control group (N=18) was 54.05 (SD=4.85). Contrary to prediction, the experimental group did not score significantly higher on the AM (PACI-O) Index compared to the control group following treatment (t = 0.948, P>0.05, 1 tailed). However, a small to medium effect size in the expected direction was witnessed, d= 0.31.

7.3.2 Treatment engagement as rated by the treatment tutors – STEQ only - H2

The combined sample

The minimum possible score on the STEQ was 0 and the maximum possible score was 55. Scores in the current sample ranged from 12 to 55. The higher the score, the more the participant was deemed to have engaged in treatment (which was viewed as a positive trait). One hundred and four participants were involved in the analysis and the overall mean for treatment engagement as rated by the treatment tutors was 36.48 (SD=11.03).

There were 53 offenders in the experimental condition and their mean treatment engagement score was 37.73 (SD=11.11). There were 51 offenders in the control condition and their mean treatment engagement score was 35.17 (SD=10.91).
Data in both groups were found to be normally distributed (Kolmogorov-Smirnov P>0.05) with no outliers. Despite the normal distribution, treatment engagement is measured by the STEQ which is a new scale that has been validated on the same sample which it is pertaining to measure engagement with. Therefore, to be cautious, non parametric analysis was employed.

Despite the experimental group being rated higher than the control group for treatment engagement by the treatment tutors, this difference was not significant (z= -1.168, p>0.05, 1-tailed). However, a small effect size in the desired direction was witnessed, d = 0.23. Figure 20 shows the mean STEQ scores for both the sex offenders and general prison population in the experimental and control condition.

![Figure 20: The mean STEQ scores for both populations in the experimental and control condition](image)

Despite a higher mean score, there were no significant differences between how the general prison population and the sex offenders were rated for treatment engagement (z= -1.901, P>0.05, 2 tailed).
The general prison population

The mean for the population as a whole (N=65) was 34.86 (SD=11.51). The mean for the experimental group (N=33) was 36.36 (SD=11.85). The mean for the control group (N=32) was 33.31 (SD=11.11). Despite the experimental group being rated higher for treatment engagement than the control group by the tutors, this difference was not significant (z=-1.057, p>0.05, 1 tailed). However, a small effect size in the desired direction was witnessed, d = 0.26.

Sex offenders

The mean for the group as whole (N=39) was 39.17 (SD=9.74). The mean for the experimental group (N=20) was 40 (SD=9.61). The mean for the control group (N=19) was 38.31 (SD=10.06). The experimental group did not score significantly higher than the control group on Treatment Engagement (z = 0.583, p>0.05, 1 tailed). However, a small effect size in the desired direction, was found, d = 0.17.

7.3.3 Treatment engagement as rated by the treatment tutors and offenders – STEQ and PTEQ combined

When the scores on the therapist rated STEQ and the prisoner self-report PTEQ were combined (N=93) the mean for the experimental group was 87.36 (SD=13.61) and the mean for the control group was 81.80 (SD=12.68). Thus, the experimental group scored significantly higher for treatment engagement than the control group (z= -2.01, p<0.05, 1-tailed), with a medium effect size of d= 0.42.

When split by population the general prison population experimental group scored higher for treatment engagement than the control group (z=1.80, p<0.05, 1-tailed). However, this effect was not apparent in the sex offending population (z= - 0.93, p>0.05, 1-tailed).
Therefore, general prison population offenders in the experimental group engaged more in treatment than the control group. However, this effect was not true for the sex offending sample.

7.3.4 Post-treatment Impulsivity – H3

Combined sample

The minimum possible score on the post-treatment impulsivity measure, the EIS, was 0 and the maximum possible score was 22. Scores in the current sample ranged from 0.5 to 20. The higher the score, the more the participant was deemed to be impulsive (which was viewed as a negative trait).

Eighty participants were involved in the analysis and the overall mean of the sample was 6.42 (SD=4.88). There were 40 participants in the experimental group and 40 in the control group. The mean for the experimental group was 5.60 (SD=4.92) and the mean for the control group was 7.25 (SD=4.76).

Normality was examined for both groups and it was found the data failed to meet assumptions of a normal distribution (Kolmogorov-Smirnov P<0.001). The data was significantly positively skewed and there existed a number of outliers (in the form of an overly high impulsivity scores) in the experimental group. Data were transformed using a log transformation and data screening rerun on the new variable. The transformation was successful and the data were now normally distributed for both the experimental and control condition (Kolmogorov-Smirnov P>0.05) and with no outliers.

As predicted, the experimental group displayed significantly lower impulsivity following treatment compared to the control group (t=-1.93, p<0.05, 1-tailed), with a medium effect size in the expected direction, d= 0.43. Figure 21 displays the mean
impulsivity ratings on the EIS for both prison populations in the experimental and control condition.

Despite starting with a higher impulsivity score ($t=2.56$, $p<0.05$, 2-tailed) than the sex offenders and despite having a higher mean post-treatment score, general prison population offenders ($N=52$) did not have significantly higher post-treatment impulsivity than the sex offending population ($N=28$) ($t=1.89$, $p>0.05$, 2-tailed).

**General Prison Population**

There were 27 offenders in the experimental condition and 25 in the control condition. The mean for the experimental group was 6.75 (SD=5.54) and the mean for the control condition was 7.62 (SD=5.12). The experimental group did not have significantly lower impulsivity scores than the control group ($t=-0.845$, $p>0.05$), however a small effect size in the desired direction was witnessed, $d = 0.24$. 

*Figure 21 the mean impulsivity ratings for the offenders in both prison populations and conditions.*
Sex Offenders

There were 13 participants in the experimental condition and 15 participants in the control group. The mean for the experimental group was 3.19 (SD=1.67) and the mean for the control condition was 6.63 (SD=4.19). The experimental group showed significantly lower impulsivity scores than the control group (t=-2.85, p<0.01, 1-tailed) with a large effect size in the desired direction witnessed, d = 1.10.

7.4 Discussion

7.4.1 Summary

The aim of the current study was to assess whether the PACI-O could be used as a pre-treatment motivation enhancer. Motivation for treatment is thought to predict treatment engagement (Drieschner et al., 2004; Ward et al., 2004). Thus, the PACI-O’s effectiveness as a motivation enhancer was judged against the degree to which it could motivate offenders to engage in treatment and derive positive benefits from the programme, i.e., a reduction in criminogenic need and an increased adaptive motivation structure (hypothesised to be positively related to readiness to make behavioural changes).

The PACI-O completed before treatment led to significantly increased adaptive motivation in the general prison population, but not sex offenders. The PACI-O before treatment led to increased treatment engagement (when therapist and self-report measures were combined) for the general prison population, but not for the sex offenders. The PACI-O completed before treatment led to a significant reduction in post-treatment impulsivity for sex offenders, but not for general prison population participants. Despite significant differences not being found in some tests, all findings were in the hypothesised directions with respectable effect sizes witnessed (with the exception of the sex offenders in the
experimental group engaging more in treatment than the control group). In varying
degrees, the experimental group showed positive motivational shifts, increased treatment
engagement and reduced impulsivity. Thus, the current study adds support to the
assumption that the PACI-O could be utilised as a motivation enhancer. However, it is
clear that the ability of the PACI-O to increase motivation for ETS treatment was different
for the general prison population compared to the sex offending population.

The failure of the PACI-O to motivate sex offenders to engage more in treatment is
not congruent with McMurran & Theodosi’s (2006) study where the PCI-OA (TR)
demonstrated it could motivate refusers of sex offender treatment to display a more
positive motivational shift toward a treatment programme. This difference in results could
have arisen due to the conceptual ambiguity surrounding the term ‘treatment motivation’
For offenders who are yet to enter treatment, then the relevant treatment related behaviour
is seeking and entering treatment, whereas once the offender has entered treatment, the
concept of treatment motivation refers to their engagement during the treatment process
(Drieschner et al., 2004). Thus, the current study and McMurran & Theodosi’s study were
assessing different aspects of treatment motivation. A distinction should be made between
“motivation to enter treatment” and “motivation to engage in treatment” (Drieschner et al.).

The differences in the motivation enhancing abilities for the two prison populations
may have simply been a product of the smaller sex offending sample size in the current
study, or the fact that the PACI-O was administered by two different researchers at the
respective prisons. Additionally, differences in the administration of the ETS programme
between institutions could have occurred. However, other possible explanations for the
differences between populations will be discussed below.
7.4.2 Increased adaptive motivation

The PACI-O completed before treatment results in general prison population offenders who have more adaptive motivation than those who complete treatment as usual. As noted, adaptive motivation has been associated with readiness to change in substance abusing populations (Cox et al., 2000). Longitudinal studies need to be undertaken with an offending population to assess if this increased adaptive motivation does translate as increased readiness to change and result in real life behavioural changes. The finding of increased adaptive motivation was not found in the sex offending population. Therefore, it could be argued that the PACI-O completed before ETS treatment does not result in increased hypothesised ‘readiness to change’ for sex offenders. However, it could be erroneous to expect that adaptive motivation represents ‘readiness to change’ in offenders. Cox et al., (2000) measured ‘readiness to change’ with the URICA which is based on a stages of change model. However, the validity of the stages of change model, and the URICA, has been questioned with offenders (e.g. McMurran et al., 1998, McMurran et al., 2006; Casey, Day & Howells, 2005).

Sex offenders also had significantly lower adaptive motivation than the general prison population following treatment. Thus, despite recently receiving the same ETS treatment, the sex offenders felt their life goals were: less important, they were less in control, goals were less likely to be achieved, they knew less of how to achieve goals, goals would bring less happiness, they were less committed to goal pursuits and they felt less like prison could help them, than the general prison population. This could call into question the suitability of ETS treatment for sex offenders (elaborated on further below).

It could be argued that the general prison population respondents in the experimental condition may have scored more adaptive motivation than the control condition due to practice effects. At the time of completing the outcome measure, it would
have been the second time the experimental group had undertaken the PACI-O interview. However, if that was the case, and it was merely practice effects, then the same result in the sex offenders would have been expected. It appears that the PACI-O plus treatment has led to genuine changes in the general prison population offenders’ adaptive motivation. Even though caution must be warranted regarding the assumption that this increased adaptive motivation can be interpreted as increased readiness to change, it is nevertheless a motivational shift in the right direction. These offenders feel more confident about achieving important life goals and the role that prison can play in helping them.

7.4.3 Increased treatment engagement

The PACI-O before treatment led to an increase in reported engagement (combined score of therapist and own ratings) for the general prison population offenders. Treatment motivation is thought to predict treatment engagement (Drieschner et al., 2004; Ward et al., 2004) and those whose motivation was enhanced before treatment engaged more in the process. This suggests the PACI-O may be used to increase motivation for treatment that will lead to an increase in treatment engagement. This is a positive finding considering engagement in treatment is often seen as an intermediate goal before change in criminogenic need occurs (Ward et al., 2004) with increased engagement leading to more favourable treatment outcomes (Simpson et al., 1995). Additionally, by maintaining motivation and treatment engagement, treatment drop-outs can be deterred and offenders can complete the programme to gain maximum benefits. Therefore, the PACI-O may prove beneficial as a brief motivation enhancer.

The PACI-O completed before treatment did not motivate sex offenders to engage more in ETS treatment. One interpretation is that the PACI-O is not successful as a motivation enhancer (for treatment) with sex offenders. Another is that the sex offenders
did not need their motivation enhanced and they were already intending to engage fully in treatment. A treatment engagement ceiling effect could have occurred with this sample. Indeed, their mean score for treatment engagement by the tutors was higher than that of the general prison population (although not significantly so). As noted, a version of the PACI-O has been used to successfully motivate former sex offender treatment refusers to seek information on a programme in the past (McMuran & Theodosi, 2006), therefore future studies should further investigate the role the PACI-O could play with sex offenders.

The problem that could arise in the interpretation of these results is that sex offenders are often seen as a prison population that engage in manipulative behaviour (Marshall, Anderson, & Fenrnadez, 1999). Due to the level of scorn they face in society, sex offenders constantly live in a climate of hostility; thus it can be assumed that, as a matter of course, sex offenders engage in impression management, especially when dealing with those in an assumed position of authority (Levenson, et al., 2009). Between 48% - 79% of rapists and 43%-47% of sex offenders against children have been found to be psychopathic deviants (Knight & Prentky -1990). Psychopathic sexual deviant offenders are able to use their charm and manipulative skills to obtain good behaviour ratings from therapists in treatment, however their presumed “compliance” with treatment is unlikely to transfer to their conduct outside of the treatment setting (Stalans, 2004). Thus, the current sample may have falsely presented as compliant and engaged in ETS . However, it has been found that offenders who indulge in impression management are reported to have fewer antisocial attitudes and are lower risk for committing a criminal offence (Mills & Kroner, 2005). Therefore, this suggests that behavioural ratings regarding sex offenders are not invalid.

Another possibility is the suitability of the ETS programme for sexual offenders. ETS is a cognitive skills programme, and it could be argued that many sexual offenders already hold sufficient cognitive skills to some degree (they can develop intricate strategies
for accessing victims in a deliberate well-controlled manner [Marshall et al., 1999]).

Offenders who do not show evidence of cognitive shortcomings should not be expected to benefit from cognitive based programmes designed to address such cognitive shortcomings (Antonowicz, 2005). Thus it may be imperative to assess offenders for such cognitive deficits before commencement of programmes. One of the proposed internal determinants underlying motivation for treatment is treatment suitability (Drieschner et al., 2004), thus if treatment is not well matched to the participants, then motivation for treatment could be undermined. To be ready for treatment, the offender must be motivated and find the treatment relevant (Ward et al., 2004). In the Readiness to Change Framework (Burrowes & Needs, 2009) a ‘catalyst’ is seen as something that has the potential to help someone change (e.g. a treatment programme). However, how much it helps depends on how it is received by the individual. If the offender has poor expectations about the catalyst, feels it is unsuitable or they are unlikely to succeed, then readiness to engage with the catalyst may be reduced (Burrowes & Needs, 2009).

However, Robinson (1995) has reported that the cognitive based programme Reasoning & Rehabilitation (ETS is a modified version of this programme for England and Wales) can reduce the likelihood of recidivism in sex offenders by 39%. Thus the ETS programme may indeed have utility with sex offenders. Nevertheless, it would be beneficial to assess the use of the PACI-O as a motivation enhancer for sex offenders who were about to attend specialised sexual offending treatment programmes.

Sexual offenders are a population thought to manifest cognitive distortions such as denial and minimisation (Marshall et al., 1999). In the current sample of sex offenders, it transpired that there were nine offenders who were denying their offence. Deniers create obstacles for effective group therapy (Stalans, 2004) and their presence may have made the results of the current study harder to interpret. Another of the hypothesised internal determinants underlying motivation is thought to be problem recognition (Drieschner et al.,
Thus, if some of the current participants did not feel they had a problem, their motivation for treatment could be undermined. Problem recognition is required for readiness to change and offenders must believe that they have a problem (Burrowes & Needs, 2009). Cox & Klinger (2004b) argue that people that view no reason to change their behaviour are unlikely to do so, regardless of how sound their motivation structure is. Therefore, caution must be warranted when using the PACI-O with offenders who deny their offence or believe that there is no reason for them to stop their behaviour. These offenders may display a sound motivation structure but may fail to use this motivation to change their ways.

Under the concept of readiness for treatment principle, motivation is only one of the factors needed for successful treatment engagement. Low readiness can be caused by the presence of characteristics within either the offender or therapeutic situation (Howells & Day, 2003). Additionally, the MORM states that readiness is likely to be a dynamic, rather than static phenomenon, and Casey et al. (2007) postulate that the degree to which treatment engagement is sustained is dependent on intention which can be affected by internal and external factors at any stage, either weakening or strengthening it. Thus, motivation could have been enhanced with PACI-O for the sex offenders but that motivation could have been weakened at any point in the treatment process. Again, investigations into the suitability of the treatment and other therapeutic characteristics should be examined in future studies. It could be beneficial to administer the PACI-O as a brief mid-programme enhancer to ensure motivation is maintained.

Overall, there was support that the PACI-O enhances offender motivation to engage in treatment, at least for the general prison population. However, the current study only measured engagement in ETS, it may not be possible to generalise to other populations and other treatment programmes. This will need to be explored with future research.
Additionally, the STEQ and PTEQ were quite narrow measures of treatment engagement. It could be argued that a 5 item scale would be unable to fully gauge all the necessary behaviours for treatment engagement. Future studies could also consider more comprehensive measures of treatment engagement. Furthermore, the PTEQ has not gone through the same validation process as the STEQ, so results should be treated cautiously.

One of the hypothesised benefits of enhancing motivation for treatment and increasing engagement was the deterrent of treatment drop-outs. The numbers of treatment drop-outs in the current study were too few for statistical analysis. However, this warrants attention the future. Additionally, the issue of treatment drop-outs may be more relevant in a community setting, rather than in prison where offenders are mandated to treatment.

It needs to be clear whether the benefits of enhancing motivation for treatment come about via discouraging drop-outs or whether the level of engagement is indeed related to treatment outcome, i.e., the higher the treatment engagement the more the treatment benefits.

Further work is also needed to assess the relationship between treatment engagement, changes in dynamic risk and behavioural changes (Casey et al., 2007). However, we must also accept that a simple linear relationship is unlikely to be apparent.

7.4.4 Impulsivity

The PACI-O before treatment did not result in a significant decrease in impulsivity for the general population offenders. In line with the treatment interaction hypothesis, the PACI-O may boost offender motivation for treatment engagement, but motivation is not related, per se, to treatment outcome. For general prison population offenders the PACI-O before treatment may result in increased treatment engagement that in turn affects outcome.
Impulsivity was significantly reduced in sex offenders who completed the PACI-O before treatment and a large effect size was seen. The PACI-O resulted in increased treatment effectiveness for this population. However, this did not appear to be through the medium of treatment engagement. This is not what would be expected if treatment engagement was the mediating variable between treatment motivation and treatment outcome.

Perhaps reduced impulsivity came about due to the additional focus on goals meaning increased life planning skills were obtained. The PACI-O may have clarified offenders’ life goals and in conjunction with ETS increased the offenders thinking skills. This may not have happened with the general prison population as they had more cognitive short-comings with regard to impulsivity and they derived all they needed by engaging in the ETS programme. The general prison population were found to have higher levels of impulsivity than sex offenders prior to starting ETS, thus there stood more of a ‘need’ for ETS with this population (with regards to the dynamic risk factor of impulsivity). The exact mechanism is unknown, however, sex offenders who completed the PACI-O before treatment benefitted more from treatment, with regard to reductions in self-reported impulsivity, than those who attended treatment alone.

However, Evenden (1999) notes that there may be limitations to using simple ratings on impulsivity scales to infer impulsivity. He states that it is often a combination of factors such as strong affect and substance abuse that interacts with personality traits to produce impulsive behaviour. Additionally, there is the problem of using self-report measures with offenders due to the issue of social desirability. Seager, Jelicoe and Dhaliwal (2004) suggests changes in proximal measures (such as improvements on self-report questionnaires) may reflect the fact that offenders have simply learned the skills to answer self-report questions in a more pro-social manner rather then made the changes warranted. It will be important to ensure that any positive outcomes in reduction in
dynamic risk factors (measured by self-report questionnaires) does not reflect the offenders' ability to merely improve on giving 'correct' answers on self-report measures, or increased skills at positive image management and 'faking good'. However, McDougall et al (2009b) note that understanding the appropriate response is the first step in the process of changing thinking styles with a view to changing behaviour. Additionally, there is evidence that self-report measures can be used to predict recidivism (Motuik et al., 1992). Thus, such self-report outcome measures may have ecological validity despite the threat of social desirability in responding.

Attempts were initially made to collect data on a more objective outcome measure. This was the number of adjudication reports within a three month period of completing ETS. However, this was abandoned due to low numbers of adjudications in both conditions plus trouble with obtaining the data once offenders left the establishment. Plus, this outcome measure too could have suffered from subjective reporting of adjudications from the officers.

7.4.5 Mechanisms of change

The PACI-O was tested as a motivation enhancer that could lead to increased treatment engagement, and through treatment engagement additional increased motivation and reductions in impulsivity would occur. From this perspective increased adaptive motivation could be viewed as a mediating influence, i.e., pre-treatment intervention plus treatment instigates further adaptive motivation which allows positive treatment outcomes such as reductions in criminogenic need. This should be examined in future studies. When an intervention is shown to be effective, it is informative to examine the mediating processes that resulted in the witnessed effects (Judd & Kenny, 1981). If the causal chain is understood, it may help us establish not just whether the PACI-O 'works' but also why it may work. As noted, this is unlikely to be a linear process due to the myriad of factors that
could affect pre-treatment motivation, treatment engagement, mid-programme motivation, and outcome. Such factors would include the internal and external factors identified by the readiness to change model (Ward et al., 2004) plus the internal determinants hypothesised to underlie motivation for treatment, and the effectiveness of the treatment approach with the population under study (Drieschner et al., 2004).

As noted, treatment motivation is defined as the patient’s motivation to engage in their treatment and is thought to predict treatment engagement, which in turn is thought to predict outcome. According to the treatment interaction hypothesis, motivation or readiness affects treatment and treatment in turn affects outcome, but motivation for treatment does not directly affect treatment outcomes (DeLeon et al., 2000). However, the sex offending population showed increased positive treatment outcome following a pre-treatment motivation enhancing intervention (on the assumption that the PACI-O did enhance their motivation). Thus the causal mechanisms of change require further attention.

7.4.6 The PACI-O and the GLM

It was stated that the PACI-O may be useful in operationalising the GLM for practical application and accruing support for the model via empirical investigations. The current study has added support for the GLM in that a focus on offender goals led to improved treatment engagement in a treatment programme. The PACI-O also improved the effectiveness of ETS treatment in the form of reductions in the criminogenic need of impulsivity for the sex offenders. ETS is a cognitive skills programme developed on the RNR principles, and an additional focus on goals led to increased effectiveness for some offenders. The life areas of the PACI-O share some overlap with the primary human goods stated by the GLM (see chapter 1), and goals are viewed as the means by which primary goods are obtained. Thus, it could be argued that attention to personal goals that could acquire primary human goods before standardised treatment led to the increased treatment
benefits. This would be in line with the thinking that the GLM could supplement (not replace) the RNR model to bring about improved treatment effectiveness. However, this was a preliminary study and future work needs to assess if the short-term measures of treatment success translate into real-world behaviour change.

7.4.7 Potential uses of the PACI-O

The PACI-O could be of use to offender management services as it is a standardised, brief motivation enhancer that can be implemented by clinicians with no formal forensic training. Given the importance of offenders engaging and completing treatment, the PACI-O could be a time and cost-efficient tool for use in practice.

If the PACIO shows further potential as a motivation enhancer it could be utilised in a number of ways. It could be used as a pre-treatment motivation enhancer, or it could be used during a treatment programme, especially for those with low motivation and high risk offenders, to maintain motivation at adequately high levels to allow treatment to interact with the motivation and elicit change. It may maintain motivation during treatment and discourage drop-outs, which can lead to detrimental effects. Alternatively, the PACIO could be a brief intervention for offenders in itself.

McMurran (2002) argues that it must be clear what motivational interventions are expected to do i.e. motivate offenders to engage in treatment or motivate offenders to change. This thesis has focused on the PACI-O's ability to enhance motivation for treatment, but there exists opportunities to assess its ability to motivate offenders to change their behaviour. McMurran (2002) states that intensive intervention may not be necessary for every offender when there is support that brief interventions may be effective with some offenders. The PACI-O is a brief cost-effective (with regard to time and training needed to administer) motivation enhancement intervention that, when combined with treatment, can result in increased treatment benefits (increased treatment engagement for
the general prison population and reduced impulsivity for sex offenders). Hence future studies should assess the impact of the PACI-O alone on dynamic risk factors and behaviour change to assess if an additional focus on goals could be an active ingredient in the change process.

Finally, the PACI-O is brief and time efficient so it can be used repeatedly – perhaps at parole to keep offenders focused on what their goals are and maintain adequate levels of motivation to conduct their lives in pro-social ways. Maguire & Raynor (2006) note that the ‘What Works Literature’ states that unless the learning from prison treatment programmes is reinforced after completion, then much of the benefit may be lost. Thus the PACI-O could be used at probation to keep the offender focused on their goals and to help them remember how treatment assisted them and equipped them with the skills they needed to realise their goals.

7.4.8 Individualised treatment

While current treatment programmes are proving somewhat successful and have their benefits, there are some reservations. The problem with manualised approaches is that standardised procedures are followed and an individual’s particular good life may not be realised (Ward 2002). The PACI-O may be a way to explore an offender’s concept of a good life and it may also serve as an opportunity to identify any problems that could be impediments to successful treatment engagement. Henggeler (1998) undertook an individualised approach and used the technique of multisystematic treatment approach with anti social youths and found favourable clinical outcomes and long-term reductions in criminal activities and incarceration. The PACI-Os individualised approach and allegiance to the GLM way of thinking is in keeping with recent and popular thinking. Lee at al. (2006) reduced the drop-out rates of sex offenders in treatment by enhancing the offenders’ motivation for treatment via providing individual treatment before attending group
treatment (in order to get the offenders to accept they needed to work on their problems). Resources could be targeted at those offenders who display known risk factors for dropping out of treatment (for example, aggression, hostility and rule violating behaviour) in order to encourage retention in the programme. Thus, individualised treatment and pre-treatment motivation enhancement is increasing in popularity.

7.4.9 Systematic Motivational Counselling

The PACI-O has shown potential as a motivation enhancer and this could be maximised by further developing it into a Systematic Motivational Counseling (SMC; Cox & Klinger, 2004c) type of intervention. SMC has shown favourable results with a number of populations. This technique would use the goals identified in the PACI-O as a framework for therapy. With SMC, maladaptive profiles are identified and targeted for change (Cox & Klinger, 2004c). This technique when conducted on an individual and group basis has shown favourable results with a number of populations including substance abusers, and persons with psychosis and personality disorders (Cox & Klinger, 2004c). A brief and efficient motivational enhancement intervention may be of considerable use to offender management services. McMurray (2004) notes that components of SMC - namely goal setting (breaking down large goals into manageable pursuits and encouraging work on goals between sessions) has already showed promise when working with offenders.

7.4.10 Additional future research

The group environment is likely to have an impact on treatment outcome. Beech & Fordham (1997) note that there are features of a treatment group that are more likely to elicit a positive change such as: cohesiveness, good leadership, an organised group, an environment where members could freely express themselves and a sense of hope being instilled in the members. However, feedback from some of the offenders in the current study demonstrated this was not always the case during ETS. Some mentioned that is was
difficult to engage when others were disruptive in the class. There was also a sense for some that if they were to show they were engaging too much they’d be set apart by their peers for ridicule. Hence it was often easier to portray they weren’t as interested in the treatment process as they really were. Such factors in the treatment environment could undermine any motivational effects of the PACI-O. Therefore, future studies should perhaps look to randomising ETS groups rather than individuals. That way it could be assessed if the PACI-O could motivate all in the group to engage in treatment and thus bring about increased treatment benefits compared to attending treatment alone.

Investigations are also needed into what the characteristics are of offenders who hold high adaptive motivation, who engage in treatment fully and have low levels of impulsivity following treatment. Attempts were not made during the current study due to the levels of missing data. However, McDougall et al (2009b) found that some offenders were more likely to benefit from ETS in terms of improvement in impulsivity ratings. Preliminary investigations showed offence category, financial, educational and employment problems were significantly associated with improvements in impulsivity following ETS (improvement in impulsivity reduced as problems with finance, education and employment increased). ETS was found to be most effective in reducing impulsivity in offenders whose index offence involved minor violence, arson and criminal damage and least in offenders who were convicted of burglary, theft or fraud. Finding out the characteristics of those who have high adaptive motivation, engage more and have reductions in impulsivity will help shape course content in order to pay attention to offenders needs. It may highlight characteristics that are missing in offenders who cannot engage and glean benefits from treatment.
7.4.11 Limitations of the current study

Some limitations have been noted throughout the discussion. However, a few more are worthy of consideration. One limitation is the amount of missing outcome data, especially on the EIS. This arose due to offenders' questionnaires being lost in transit from the prison to head office where they were to be inputted onto a computer. This only came to light in the final stages of the research, however, the researcher decided to proceed with the analysis of the pre-defined outcome measure of impulsivity. The missing data appeared to be missing at random, thus it was assumed no bias would compromise the integrity of the study. Additionally large amounts of missing data in research studies is usual, regardless of research design (McDougall, Clarbour, Perry, & Bowles 2009a).

Another limitation which follows from the above is the decision to analyse cases that only had outcome data. McDougall et al. (2009a) states that bias could be introduced by evaluating cases that had no missing data as missing data is such a common occurrence during research trials. Future studies with the PACI-O should look into dealing with missing data conservatively. McDougall et al., (2009a) used the Baseline Observation Carried forward technique, however this method was not deemed suitable for the current study due to the fact it can often give rise to either liberal or conservative estimates (depending on the situation) and it can also violate the ITT principle (Kenwood & Molenberghs, 2009). The robustness of the results in this study and the handling of the missing data was tested using mean substitution for the missing values (appendix 19) and no differences in the reported result were found. This suggests that the results reported are valid.

Unfortunately, the planned Intention to Treat (ITT) and separate Per-Protocol (PP) analysis did not occur due to the missing data meaning for the most part it was only those offenders who did not deviate from protocol that could be analysed. The analyses in the
current study is classed as a modified ITT analysis. Gravel, Opatmy & Shapiro (2007) undertook a cross-sectional review of the RCT literature to assess what proportion of studies claiming to use ITT analysis actually did. They noted that 23 studies claimed to use a modified ITT analysis. They noted that rather than viewing this as a methodological weakness, they praised the studies for providing a clear description of their analysis and allowing the reader to assess the risk of bias. Transparency is the key in RCTs, and the current study adheres to this principle and allows the reader to assess the full methodology and the subsequent risk of bias.

Additionally, even though ITT analysis is often deemed the gold standard when it comes to estimating effect size in RCTs, the technique allows little to be learned regarding the effectiveness of the treatment when many of the treatment group do not comply (Hollin, 2008). The type of analysis used in RCTs is usually dependant on whether you are conducting an ‘exploratory’ study (measures the direct effect of the intervention under controlled conditions. Ideally, this is what would happen) or ‘pragmatic’ study (the impact of the intervention had it been introduced to routine clinical practice; Everitt & Wessely, 2004). Thus, the current study could be seen as an exploratory trial to assess the effectiveness of the PACI-O under controlled conditions. The exploratory trial is an important part of treatment evaluation and necessary before a pragmatic trial is undertaken (Hollin, 2008). Therefore, in the future, it is recommended that a full ITT analysis is conducted as well as PP.

A final limitation of the study is that the primary outcome measure of adaptive motivation is that the PACI-O was used as both an enhancer of offender motivation (intervention) and a measure (outcome measure). It is a logical fallacy to assume it can be both an accurate measure and an effective enhancer. However, The PACI-O has shown preliminary potential as a measure (see chapter 6) and enhancer, therefore its use as an intervention as well as an outcome measure was merited in the current study.
7.4.12 The RCT feasibility study

The RCT feasibility study was regarded as a success. However, a number of difficulties were noted and should be addressed in future studies to allow for the smooth running of the trial. Firstly, plans should be put in place to ensure that participants can be followed up with the outcome measures. This was not practical in the current study, but with a large team and good communication it would be possible. Secondly, participant flow should be large enough to allow for drop-outs and those with missing data. There was a need to recruit a second prison to the trial three months into the study due to fear that the case-flow of offenders would be inadequate for the researcher’s needs. Enough time needs to be dedicated to the RCT in order to assess adequate numbers of offenders. Finally, there were also difficulties with changes to the treatment schedule at the last minute. These can be circumvented with good communication and having close contacts in the prison who could relay information back effectively.

It is recommended that a team undertake future RCTs rather than, for the most part, an individual researcher from outside the prison setting. However, a second researcher, who worked at the category C prison, collected data at the second prison during the study. This boosted the number of offenders in the study and allowed for a more rigorous analysis. This also allowed for an examination of the differences between different offending population.

Setting up and maintaining the momentum of an RCT requires commitment and attention to detail and there are numerous complexities and difficulties of conducting a RCT in a prison environment where operational imperatives are continually changing (McDougall et al., 2009b). Such difficulties can be overcome with precise early planning and communication between researchers and prison personnel.
7.4.13 Feedback from offenders on the PACI-O during the RCT feasibility trial

Feedback on the PACI-O interview from the offenders was overall very positive (appendix 10). Some examples of positive feedback are “The interview was realistic. It was genuinely what was on my mind and I had the chance to talk about what I want to do” and “Yeah it was great. I thought it would be different, people trying to get in your head and stuff, but it was great”. However, one offender stated “Some of the questions are awkward as I have a life in prison and a life outside and they are totally different. I mean you could ask me questions about either prison or on the out and I could tell you. But with those questions I was trying to combine my lives to answer”. Therefore, it may be important to remember that some offenders may separate their life and goals in prison to their life and goals when they are not incarcerated.

7.4.14 Conclusion

The current study accrued support for the assumption that the PACI-O could be used as a motivation enhancer. Its effects appeared to be moderated by whether the offender was from the general prison or sex offending population. Possible reasons for this were discussed above.

The effectiveness of the PACI-O was tested using a robust research design, i.e., a RCT. Despite the proposed criticisms of such an approach (see chapter 3), the current RCT adds to the growing body of literature based on quality research designs regarding offender treatment and interventions. It may be dangerous to assume high levels of motivation automatically mean a change in offending behaviour. It may be necessary but it is not in itself sufficient (Tierney & McCabe, 2002). Motivation and how it interacts with the change process is complicated, however, the current study goes some way to support the assumption that motivation is a dynamic construct that can be enhanced in order to bring about positive change in offenders.
Chapter 8 – The Personal Aspirations and Concerns Inventory – for Offenders and offender subjective well-being

Summary

The goal-based Personal Aspirations and Concerns Inventory – for Offenders (PACI-O) provides a base to explore offenders’ level of subjective well-being (SWB) and other related concepts such as the degree to which an offender experiences life as meaningful. This may be informative as SWB is associated with a motivation profile characteristic of the PACI-O, adaptive motivation, with an alcohol abusing population (Schroer, Fuhrmann, & Jong-Meyer, 2004). Additionally, adaptive motivation has been associated with readiness to change with substance abusers (Cox, Blount, Bair & Hosier, 2000). Despite issues such as SWB generally being viewed as a ‘non-criminogenic need’, if these links are also true of an offending population, then attending to offenders’ SWB could be beneficial in order to elicit behaviour change.

Meaningfulness in life (MIL) is thought to be a component of the strength-based Good Lives Model of offender rehabilitation (GLM; Ward & Brown, 2004; Ward & Stewart, 2003). Hence its empirical investigation with an offender population is warranted to assess if attending to personal goals leads to an increase in the degree to which an offender achieves their particular sense of a ‘good life’.

The current study found that offenders’ SWB rose significantly following a treatment programme, as did their sense of MIL. It was also found that completing the PACI-O before attending a treatment programme led to an increase in MIL above those that attended treatment alone. These results are discussed with regard to the implications of
attending to ‘non-criminogenic needs’ in treatment and the utility of the GLM with offenders. Limitations of the current study and future directions are also discussed.

8.1 Introduction

Klinger & Cox (2004a) note that a global sense of well-being (long-term happiness) and a sense that a person’s life is meaningful is closely related to having a range of satisfying personal goals, and making reasonable progress toward them (Brunstein, 1993; Klinger 1977, 1998). Extensive research has demonstrated that an individual’s priorities, goals and concerns account for variations in subjective well being levels (Emmons, 1999). Goals, current concerns and personal strivings can be viewed as cognitive motivational units of personality which provide useful units of analysis for exploring motivational models of subjective well-being (SWB; Emmons 1996).

SWB is thought to consist of three components (Emmons, 1999). There are the emotional or affective aspects, namely ‘positive and negative affect’, and there is a cognitive aspect of SWB which is often referred to as ‘satisfaction with life’.

8.1.1 Personal goals and SWB

Affective change is a change in affect from the present state and is viewed as a key motivational concept because it is the ultimate essence of what people are motivated to achieve, i.e. people strive to achieve positive affect (PA) and reduce negative affect (NA) (Klinger & Cox, 2004a). An incentive is something (an object or event) that a person thinks will bring about affective change and a goal is a particular incentive that a person strives to obtain (Klinger & Cox, 2004a). Emmons (1999) suggests that affect reflects the status of our goal pursuits.

Emmons (1996) notes that research has indicated the content of a person’s goals, the motivation behind them and the organising goal framework are all essential elements of
a goal based theory of SWB. Goals are important for an individual’s subjective well-being, mental health and motivation (Michalak & Grosse Holtforth, 2006). Another of the ways in which affect is linked to goals is the role it plays in commitment levels towards goals, it energises goal directed behaviour as well as serving as a feedback system informing on goal status (Emmons, 1996).

It has been noted that a sense of well-being and satisfaction with life depends upon identifying and attaining a range of important goals (Cox & Klinger, 2004a). It is thought a lack of coherence or conflict among goals may lead to lower levels of SWB (Emmons, 1999). The presence of goal conflicts is unlikely to lead to positive change (McMurran & Ward 2004). However, Emmons (1996) notes that goal conflict (whether large or small) is an inescapable by-product of motivational life. Nevertheless, failure to control goal conflict can result in mental and physical distress and is linked to poorer SWB (Emmons, 1999). Due to the correlational nature, it may be difficult to assess if goal conflict causes lower well-being or if lower well-being leads to people having more conflict between goals. Nevertheless, Emmons (1996) suggests it is perceived progress towards goal attainment that causes changes in time to SWB rather than vice versa.

Emmons (1996) notes that individuals who are concerned with avoiding negative outcomes are more likely to have higher levels of psychological distress than those with approach goals. Emmons & Kaiser (1994) looked at the relationship between approach and avoidance goals and indicators of both psychological and physical distress in an undergraduate and a community sample. They concluded that those with a high proportion of avoidance goals reported lower levels of well being in general. In the community sample they found that the individuals who held avoidance goals reported lower positive affect, more anxiety and less life satisfaction compared to appetitively motivated persons.
Michalak & Grosse Holtforth (2006) note that goal commitment and goal realisability are variables that impact on SWB. Commitment coupled with a facilitative life situation is more likely to result in progress in goal attainment and lead to increased emotional well-being. Michalak & Grosse Holtforth (2006) also note that even if a person is committed to his/her goals, if the conditions of their life are unfavourable in terms of facilitating goal achievement, then less goal progress is likely to be made and it could even lead to a decrease in emotional well-being.

8.1.2 Meaningfulness in life

Goal fulfilment may be necessary but not solely sufficient to obtain high levels of SWB (Emmons, 1996). It is thought that SWB involves more than just the presence of positive feelings and the absence of negative feelings; it also involves the need and search for meaningfulness in life (MIL). The formation and presence of personal goals may be a necessity of well-being and happiness; however, their presence alone is not sufficient to achieve the above states - goals need to be concurrent with the person’s needs and wider context of their life (Michalak & Grosse Holtforth, 2006). Emmons (1996) states that meaning comes from integrating personally satisfying goals into a coherent self-system that in turn belongs to a broader social system. Goal attainment will only lead to long-term well-being if goals are personally meaningful to the individual and integrated within their personal and social structures. Emmons (1996) notes that humans are more than just a set of personal goals (e.g. identity is needed). Meaningfulness may not guarantee high SWB but a lack of meaning effectively guarantees an absence of well-being (Emmons, 1996).

8.1.3 Meaningfulness in Life and the Good Lives Model

MIL is an essential component of the folk concept of a ‘good life’ (King & Napa, 1998; Ryff & Singer, 1998). Various definitions of MIL exist, however, King et al. state “life is meaningful when it is understood by the person living it to matter in some larger
sense. Lives may be experienced as meaningful when they are felt to have significance beyond the trivial or momentary, to have purpose, or to have a coherence that transcends chaos.” (p. 180)

Ward (2002) suggests that clinicians should explicitly construct a conception of a ‘good life’ in order to guide the rehabilitation of each offender. The identification of an offender’s psychological dispositions or vulnerability factors associated with their offending will provide information on the obstacles (internal and external) that are interfering in the meeting of basic human needs and inhibiting the accomplishment of primary human goods (Ward, 2002).

The notion of a ‘good life’ is at the heart of a relatively new approach to offender rehabilitation. The Good Lives Model (GLM; Ward & Brown, 2004; Ward & Stewart, 2003) introduces the construct of ‘primary human goods’ which are described as “states of affairs, states of mind, personal characteristics, activities or experiences sought for their own sake and which are likely to increase psychological well-being if achieved” (Ward, Vess, Collie, & Gannon, 2006, p.382). The aim of the GLM is to equip offenders with the skills and capabilities needed to live a pro-social life that is purposeful and meaningful (Ward, Melser and Yates, 2007). The GLM is strength based and focuses on equipping offenders with capabilities and skills to achieve primary human goods in a personally meaningful and socially acceptable manner (Ward, 2002). Ward et al. (2007) note the growing acknowledgement at the potential usefulness of using offenders’ interests and strengths to promote change. The promotion of human goods in offender treatment, as well as that of risk management, is increasing in popularity (Ward et al., 2006). One of the noted primary human goods is ‘spirituality’ which translates, in a broad sense, of obtaining a purpose and meaning in life.

The GLM is in contrast to the dominating ‘risk-need-responsivity’ (RNR; Andrews & Bonta, 2003) model. However, a proposed weaknesses of the RNR model is that it pays
inadequate attention to non-criminogenic needs including personal distress and low self-esteem, which Ward et al. (2007) state are important in terms of how they may affect offender responsivity (e.g. impact on the therapeutic alliance and hamper the delivery of RNR interventions). Nevertheless, Ogloff and Davis (2004) caution that expanding the focus to acknowledge offender needs may not result in additional reductions in reoffending. As well as a waste of scarce resources this may lead to the reinforcement of criminality which could lead to an increase in recidivism. It is logical to expect that if an offender’s SWB or MIL was raised without structured treatment to address criminal attitudes and behaviour then a rise, as opposed to a reduction, in re-offending risk may occur, hence why the GLM may be most helpful in conjunction with a risk management approach. Ward et al. (2007) warn against concentrating too much on either promoting the offender’s goods or managing risk. The authors note that focusing on either to the detriment of the other could have disastrous social and personal consequences.

8.1.4 Goals, MIL and SWB

Emotion (affect) is linked to goal striving and it is also thought to be linked to the degree to which life is found meaningful. King, Hicks, Krull & Del Gaiso (2006) suggest that feelings of MIL may bring about feelings of PA, but notes there is also an argument that PA may enhance the experience of life as meaningful. This may be either through its effect on cognition in which it allows for a greater propensity for understanding and construction of meaning, or through its role in self-regulated behaviour and its relationship to goal progress - whereby PA and NA serve as feed-back regarding how well a person is progressing toward their goals. Additionally, MIL is often thought to emerge out of motivation and it is logical that when engaged in goal relevant activity, a person would experience that activity as meaningful (King et al., 2006). Therefore, goal directed activity and the appraisal of goals may be intractably linked to the experience of MIL.
8.1.5 Exploring personal goals and SWB with offenders with the Personal Aspirations and Concerns Inventory – for Offenders

The Personal Aspirations and Concerns Inventory-for Offenders (PACI-O; described in full in chapter 2 or a full copy found in appendix 6) is a semi-structured interview that asks about aspirations and concerns across six broad life areas (plus an ‘other’ category) that can be divided into 14 subareas. There is evidence to suggest that the PACI-O is a pre-treatment motivation enhancer (chapter 7 of this thesis). The goal-based PACI-O examines current goals and provides an opportunity to explore aspects of offender goal structures and how they relate to related concepts such as SWB and MIL.

8.1.6 The current study

The aim of the current study was to use the PACI-O as a base to explore SWB with offenders. The current study will assess if the affective and cognitive components that make up SWB as well as MIL change as a function of attending a cognitive skills treatment programme (Enhanced Thinking Skills; ETS). Additionally, it will be explored whether completing the PACI-O before attending treatment leads to further changes in offender SWB and MIL using a Randomised Controlled Trial (RCT) design.

8.1.7 Hypotheses

No directional hypotheses will be stated for H1 and H2 as the current study is explorative in nature.

- To investigate if PA, NA, SWL or MIL levels change as a result of completing offender treatment - H1
- To investigate if completing the PACI-O before treatment leads to changes in PA, NA, SWL or MIL above what treatment alone elicits – H2

8.2 Method
Participants: Participants were 92 adult male offenders housed in a Category B (general population) and Category C (sexual offending sample) prison in South Wales (UK). Participants were part of a RCT (chapter 7) study to assess the potential of the PACI-O as a motivation enhancer. One hundred and eleven offenders were originally randomised. However, due to attrition, only 93 offenders completed time two measurements. One offender had missing SWB information at time 2, leaving a sample of 92 offenders for the current study.

Measures: Purpose In Life test. The Purpose in Life test (PIL; Crumbaugh & Maholick, 1964) was used to measure MIL in the current study. The PIL is highly internally reliable (alpha = 0.91) and displays good split-half and test re-test reliability (Zika & Chamberlain, 1992). McGregor and Little (1998) factor analysed the PIL and extracted the 4 items that pertain exactly to the experience of MIL (appendix 20), and these were used in the current study. Items are rated on a 7-point scale ranging from: 1 (not at all) to 7 (extremely). Participants were asked to rate their general, global feelings of MIL. The minimum possible score on the PIL was 4 and the maximum was 28.

Positive And Negative Affect Schedule. The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988; appendix 21) was used to measure PA and NA. Participants are asked to rate positive and negative mood items on a 5-point scale from: 1 (not at all) to 5 (extremely). The PANAS is a reliable and valid measure of PA and NA (Crawford & Henry, 2004). In the current study offenders were asked to rate their mood in the last few weeks (in order to gauge how mood may have changed as a result of treatment). The minimum possible score on PA was 10 and the highest was 50. The minimum possible score on NA was 10 and the highest was 50.

Satisfaction With Life Scale. The cognitive component of well-being, life satisfaction, was measured using the Satisfaction With Life Scale (SWLS, Diener, Emmons, Larson &
Griffin, 1985; appendix 22). The SWLS is a global measure of life satisfaction and reports good reliability and validity (Pavot et al., 1991). The minimum possible score on the SWLS was 5 and the maximum is 35.

*The Personal Aspirations and Concerns Inventory – for Offenders (PACI-O).* This semi-structured interview procedure is described briefly in the introduction to this chapter, in detail in chapter 2 and is shown in appendix 6.

**Procedure:** Offenders were interviewed with the measures before or following completion (or both) of the cognitive prison-based treatment programme ETS. The offenders in the current study were also part of other studies in this thesis (chapter 4, 5, 6 & 7). The PACI-O interview procedure is described in detail in chapter 3.

H2 – Offenders were randomised to one of two conditions: the experimental or control group. The experimental group completed the PACI-O interview in the week proceeding treatment commencement. The control group attended treatment as usual. SWB, AM (*PACI-O*) Index and MIL measures were taken for both groups approximately one week following treatment completion.

**Method of Analysis:** H1 = Related t-tests were used to compare SWB and MIL scores before and after treatment. H2 = A 2x2 factorial between subjects ANOVA was used to explore SWB and MIL between groups.

Parametric analysis is reported in the current study. Some data sets did not have normal distributions. Data was transformed (and reversed on occasion) where necessary. Analyses were run on both the transformed and untransformed data to ensure that findings were robust. To allow easy interpretation, the ANOVA results are reported for the untransformed data. These results did not differ from the transformed data analysis.
8.3 Results

8.3.1 Comparisons of SWB and MIL before and after treatment – H1

Before treatment, the mean PA score was (N=45) 34.08 (SD=7.50) and following treatment for the same participants it was 36.93 (SD=7.68). PA was significantly higher following treatment (t=2.69, p<0.05, 2-tailed).

Before treatment, the mean NA (N=45) score was 23.88 (SD=8.19) and after treatment for the same participants it was 19.35 (SD=7.90). Data screening indicated NA following treatment was positively skewed so data (both before and after treatment as the variables were to be compared to each other and needed to be in the same ‘unit’ as each other; Field, 2005) were transformed using a log transformation. There was a significant reduction in NA following ETS treatment (t= -4.11, p<0.001, 2-tailed).

Before treatment, the mean SWL (N=45) was 16.06 (SD=7.29) and after treatment it was 18.73 (SD=6.76). This was a significant increase in SWL following treatment (t=3.24, p>0.01, 2-tailed).

The mean for MIL (N=45) before treatment was 21.13 (SD=5.27) and the mean MIL after treatment for the same participants was 23.22 (SD=4.78). MIL data before and after treatment were negatively skewed so data was reversed and a log transformation conducted before parametric analysis. There was a significant rise in MIL following treatment (t= 2.68, p<0.01, 2-tailed). Figure 22 below shows the differences in SWB and MIL both before and following treatment.
8.3.2 The PACI-O before treatment as an enhancer of SWB and MIL – H2

The following analyses are a comparison between the experimental and control group on SWB (positive and negative affect and satisfaction with life) and MIL following ETS treatment. The experimental group completed the PACI-O before ETS, whereas the control group completed ETS treatment as usual.

**Positive affect:** Ninety two offenders were involved in the current analysis. Those in the general prison population experimental group (n=26) had a mean PA score of 37.26 (SD=7.53) following treatment, while offenders in the general prison population control group (n=29) had a mean PA score of 33.93 (SD=8.07). Sex offenders in the experimental condition (n=19) had a mean PA score of 36.47 (SD=8.48) and sex offenders in the control group (n=18) had a mean score of 33.88 (SD=7.85). Overall, the experimental group mean for PA was 36.93 (SD=7.86) and the control condition 33.91 (SD=7.90). Overall, the general prison population had a mean PA score of 35.50 (SD=7.92) and the sex offenders 35.21 (SD=8.17)
The PA ANOVA: Assumptions of homogeneity of variance were met (Levene’s test of equality of error variances p>0.05). There was a non-significant main effect of condition F (1, 88) = 3.05, p>0.05, 2-tailed), with an effect size of 0.30 in the desired direction. There was a non-significant main effect of population F (1, 88) = 0.06, p>0.05, 1-tailed), with an effect size of <0.001. There was no significant interaction effect between condition and prison population F (1, 88) = 0.49, P>0.05, 2-tailed), with an effect size of <0.001.

**Negative Affect:** Ninety two offenders were involved in the analysis. Those in the general prison population experimental group (n=26) had a mean NA score of 18.30 (SD=7.07) following treatment, while offenders in the general prison population control group (n=29) had a mean NA score of 19.55 (SD=7.63). Sex offenders in the experimental condition (n=19) had a mean NA score of 20.78 (SD=9.21) and sex offenders in the control group (n=18) had a mean score of 18.61 (SD=7.37).

Overall, the experimental group mean was 19.35 (SD=7.90) and the control condition 19.19 (SD=7.46). Overall, the general prison population had a mean of 18.96 (SD=7.20) and the sex offenders 19.72 (SD=8.32).

The NA ANOVA: Assumptions of homogeneity of variance were met (Levene’s test of equality of error variances p>0.05). There was a non-significant main effect of condition F (1, 88) = 0.81, p>0.05, 2-tailed), with an effect size of <0.001. There was a non-significant main effect of population F (1, 88) = 0.220, p>0.05, 2-tailed), with an effect size of <0.01. There was no significant interaction effect between condition and prison population F (1, 88) = 1.087, P>0.05, 2-tailed), with an effect size of <0.01.

**Satisfaction with Life:** Ninety two offenders were involved in the analysis. Those in the general prison population experimental group (n=26) had a mean SWL score of 18.76 (SD=6.42) following treatment, while offenders in the general prison population control group (n=29) had a mean SWL score of 17.37 (SD=7.24). Sex offenders in the
experimental condition (n=19) had a mean SWL score of 18.68 (SD=7.38) and sex offenders in the control group (n=18) had a mean score of 17.77 (SD=7.89). Overall, the experimental group mean was 18.73 (SD=4.78) and the control condition 17.53 (SD=7.41). Overall, the general prison population had a mean of 18.03 (SD=6.84) and the sex offenders 18.24 (SD=7.54).

The SWL ANOVA: Assumptions of homogeneity of variance were met (Levene’s test of equality of error variances p>0.05). There was a non-significant main effect of condition $F(1, 88) = 0.564, p>0.05$, 2-tailed), with an effect size of $<0.01$. There was a non-significant main effect of population $F(1, 88) = 0.01, p>0.05$, 2-tailed), with an effect size of $<0.001$. There was no significant interaction effect between condition and prison population $F(1, 88) = 0.25, P>0.05$, 2-tailed), with an effect size of $<0.001$.

**Meaningfulness in Life:** Ninety two offenders were involved in the analysis. Those in the general prison population experimental group (n=26) had a mean MIL score of 23.53 (SD=5.12) following treatment, while offenders in the general prison population control group (n=29) had a mean MIL score of 20.79 (SD=5.79) following treatment. Sex offenders in the experimental condition (n=19) had a mean MIL score of 22.78 (SD=3.37) and sex offenders in the control group (n=18) had a mean score of 20.50 (SD=6.42). Overall, the experimental group mean was 23.22 (SD=4.78) and the control condition 20.68 (SD=5.97). Overall, the general prison population had a mean of 22.09 (SD=5.61) and the sex offenders 21.67 (SD=5.51).

The MIL ANOVA: Assumptions of homogeneity of variance were met (Levene’s test of equality of error variances p>0.05). There was a significant main effect of condition $f(1, 88) = 4.65, p<0.05$, 2-tailed), with an effect size of 0.04 in the desired direction. Offenders in the experimental condition scored significantly higher on MIL following treatment than the control group. There was a non-significant main effect of population $f(1, 88) = 0.199$,
p>0.05, 2-tailed), with an effect size of < 0.001. There was no significant interaction effect between condition and prison population f (1, 88) = 0.38, P>0.05, 2-tailed), with an effect size of <0.001.

8.4 Discussion

8.4.1 Summary

In the current study, offenders’ PA was significantly raised and NA significantly decreased following ETS treatment. Additionally, the cognitive component of SWB, SWL, was significantly raised following treatment. The degree to which life was seen as meaningful was also significantly raised following treatment.

The results of the RCT showed completing the PACI-O before treatment did not significantly raise feelings of PA following treatment compared to those who completed treatment alone. Completing the PACI-O before treatment did not significantly reduce NA compared to offenders who attended treatment alone. Completing the PACI-O before treatment did not significantly raise SWL following treatment. However, it was found that those who completed the PACI-O before treatment scored significantly higher on MIL following treatment compared to those who completed treatment alone.

8.4.2 Enhancement of SWB and MIL following ETS treatment

ETS treatment appeared to increase SWB for offenders in the current sample i.e. PA and SWL were raised and NA lowered. The related concept of MIL was also raised in offenders as a result of ETS treatment. As noted, Emmons (1996) states that meaningfulness may not guarantee high SWB but a lack of meaning guarantees an absence of well-being. Therefore, it is not surprising that MIL was raised in line with SWB following treatment. Emmons (1999) suggests that affect reflects the status of our goal pursuits. Therefore, ETS may have increased offenders efficacy with regards to obtaining
important goals, and this change in affect is part of a feedback system that informs on goal progress.

It was viewed as a positive finding that SWB and MIL were raised following the offender treatment programme. However, what this finding means in terms of offender rehabilitation will be subject to future research to establish the role of SWB in offender behaviour change. Adaptive motivation has also been positively related to SWB following completion of a group alcohol treatment programme (Schroer et al., 2004), and adaptive motivation is associated with determination to change problem behaviour in other populations (e.g. Cox et al., 2000). Therefore, raising SWB may be associated with increased adaptive motivation which may be indicative of an offender’s determination to change their problem behaviour. This will be subject to future study to assess the role of SWB and adaptive motivation with offenders. Without strong empirical evidence, the attendance to factors typically viewed as ‘non-criminogenic’ may be at best a waste of scarce resources, but at worst a detriment to the offender change process (Ogloff & Davis, 2004).

8.4.3 The PACI-O as an enhancer of SWB and MIL

The completion of PACI-O before a standardised treatment programme did not lead to significant increases in PA or SWL. However, a small effect size (0.30) was witnessed with regard to the ability of the PACI-O plus treatment to raise levels of offender PA.

Completion of the PACI-O before treatment resulted in higher NA for sex offenders following treatment (although not significantly so). Perhaps the additional focus on important life goals led to an increase in distress for sex offenders about to enter treatment. This may not necessarily be undesirable as distress or level of suffering is one of the six hypothesised internal determinants of motivation (Drieschner, Lammers & Van Der Staak, 2004). Drieschner et al., note that a higher level of suffering may lead to more
treatment engagement (except if it’s coupled with a construct such as learned helplessness). However, these measurements were taken after the completion of a treatment programme; therefore the presence of higher distress at this point may not be a positive quality. Additionally, there would be ethical implications of purposely increasing an offenders’ level of personal distress in order to enhance their engagement in treatment. Further research is warranted, due to the small sex offending sample in the current study, to assess the role of NA with offenders and to further establish the utility of the PACI-O with sex offenders.

The PACI-O completed before treatment leads to an increase in MIL above and beyond what treatment alone can elicit in offenders. Klinger & Cox (2004a) noted that the sense that a person’s life is meaningful is closely related to having a range of satisfying personal goals and making reasonable progress toward them (Brunstein, 1993; Klinger 1977, 1998). The extra focus on goals before treatment may have encouraged offenders to consider important life goals they previously hadn’t thought of. This combined with a cognitive skill treatment programme (which may have improved efficacy to achieve goals) may have elicited an extra sense of MIL in offenders. MIL is often thought to emerge out of motivation and it is logical that when engaged in goal relevant activity, a person would experience that activity as meaningful (King et al., 2006).

Emmons (1996) states that meaning comes from integrating personally satisfying goals into a coherent self-system that in turn belongs to a broader social system. The PACI-O before treatment may have helped to merge the offender’s personal life goals with the central goal of the treatment programme i.e. to stop reoffending behaviour. This may have resulted in the realisation of how the goal of treatment can complement their own personal goals and this led to the increase in MIL.
8.4.4 Attending to non-criminogenic needs and the use of the GLM in offender rehabilitation

The promotion of human goods in offender treatment, as well as that of risk management, is increasing in popularity (Ward et al., 2006). A goal perspective may be useful to offender rehabilitation due to its ability to operationalise the GLM for practical application and empirical investigations (McMurran & Ward, 2004).

The PACI-O life areas bear resemblance to some of the primary human good areas of the GLM. For example the primary human good of ‘excellence in work and play’ is covered under the ‘employment, training and finances’ and the ‘recreation’ life areas of the PACI-O; The primary good of ‘relatedness’ is covered under the PACI-O life area of ‘close personal relationships’; and the primary good of ‘life (including healthy living, physical functioning)’ is covered by the PACI-O life area of ‘physical and mental health issues’. Therefore, the PACI-O could be viewed as incorporating principles of the GLM into practice in conjunction with ETS (derived from a risk management model). When offenders complete the PACI-O it could be argued that they are paying attention to primary human goods. Thus it is imperative to assess if this attention to these primary human goods leads to improved treatment outcomes above and beyond what a risk management approach can.

One of the primary human goods is the acquisition of a purpose and meaning in life. The inclusion of the PACI-O before treatment resulted in an increase in MIL. This indicates that the PACI-O could be a foundation to explore the GLM and accrue empirical evidence for its use with offenders. It is stated that the acquisition of primary human goods will lead to psychological well-being if achieved and this can result in a reduction in recidivism (Ward et al., 2006). The PACI-O appeared to contribute toward an offender’s achievement of a human primary good (the sense that life is meaningful). Therefore, future
work in this area is warranted and the implications of MIL on real-life behaviour change require exploration.

8.4.5 Limitations of the study

A limitation of the current study is that there was no evidence to suggest that the scales used to assess SWB and MIL were reliable and valid at measuring these constructs with offenders. Despite impressive psychometrics with other populations, caution must be exercised when extrapolating measures from one population to another without empirical testing.

Additionally, previous studies in this thesis have suggested that there may exist differences between the general population and sex offender participants. However, the current study did not fully explore this potential difference with regard to offender SWL and MIL following ETS. This was due to the exploratory nature of the study and the intention to increase statistical power. However, the examination of differences between populations is recommended in future research.

Finally, positive changes witnessed on the SWL and MIL measures at time 2 for hypothesis 1, and in the experimental group for hypothesis 2 may have been a result of practice effects. It would have been the second time that the measures were completed by these offenders. However, given the aim of the ETS programme (to help offenders practice new ways of thinking and behaving that will lead to them being able to achieve their goals in pro-social ways), it is logical to suppose that there may be a positive change in SWB following programme completion.
8.4.6 Conclusion

The content of a person's goals, the motivation behind them and the organising goal framework are all essential elements of a goal based theory of SWB (Emmons, 1996), and the PACI-O may be a useful base from which such issues can be explored. The attendance to issues such as offender SWB and MIL in offender rehabilitation is contentious. With the scarce resources available, it may be superfluous to concentrate on such non-criminogenic needs at the detriment of criminogenic needs. However, non-criminogenic needs should be tackled if they interfere with the ability to engage in treatment to address criminogenic needs (Ward et al., 2007). Therefore, the study of constructs such as SWB and MIL are justified. Additionally, although successful cognitive treatment can result in reduced recidivism rates (Robinson, 1995), it is not successful for every offender on every occasion. Attending to non-criminogenic need, perhaps through a GLM framework, may lead to reductions in re-offending rates above and beyond the success rates already achieved thanks to the risk-need model.
Chapter 9 - Final Discussion

The examination of offenders’ motivation to engage in treatment and change is paramount as the successful completion of a treatment programme is dependent on maintaining motivation throughout the programme (Barrett, Wilson & Long, 2003), and without motivation to complete treatment the offender is at risk of dropping out (McMurran & McCulloch, 2007). Dropping out of treatment has shown to be related to an increased risk of re-offending (Cann, Falshaw, Nugent, & Friendship, 2003; Hanson & Bussiere, 1998; McMurran & Theodosi, 2007; Hanson & Harris, 2000).

It is believed that for behaviour change to occur in treatment, the client must actively engage in the treatment process (Levenson, Macgowan, Morin, & Cotter, 2009; Hiller, Knight, Leukefeld and Simpson, 2002) with engagement being seen as an intermediate goal before behaviour change (Ward, Day, Howells & Birgden, 2004). Treatment engagement is related to treatment progress and more favourable treatment outcomes (Levenson & MacGowan, 2004; Simpson, Joe, Rowan-Szal and Greener, 1995). Research suggests recidivists tended to be less engaged in treatment than non-recidivists (Hanson & Harris, 2000; Webster, 2005).

The construction and potential utility of the Personal Aspirations and Concerns Inventory- for Offenders (PACI-O) has been detailed in this thesis. The PACI-O purports to be an assessment, and potential enhancer, of offender motivation. The current research has provided preliminary support for this assumption.
9.1 Summary of findings

Chapter 1 highlighted the importance of treatment motivation to allow offenders to engage in treatment and obtain maximum treatment benefit, i.e., reduction in criminogenic needs and a reduction in offending behaviour. It was also noted that treatment engagement may be important to prevent offenders dropping out of treatment. An argument was made for the development of reliable and valid measures of motivation to aid treatment selection and to identify those offenders who may need their motivation enhanced before commencement of treatment. Additionally, enhancers of offender motivation are required to boost offender motivation when such measures suggest an offender is not motivated to engage in treatment and obtain maximum treatment benefits.

Chapter 1 also introduced the concept of ‘treatment readiness’ and concluded that motivation is just one of several internal ‘conditions’ required for successful treatment engagement. It was also noted that under the concept of readiness, external factors are also thought to impact on the ability of offenders to engage in treatment in order to change. Treatment motivation is studied in isolation in this thesis to further understand this important construct; however, it should be interpreted within the broader framework of readiness to change.

The literature in chapter 1 suggests that treatment motivation affects treatment, and treatment in turn, affects outcome. It is not thought that treatment motivation directly affects treatment outcome and reoffending (DeLeon, Melnick, Thomas, Kressel, & Wexler, 2000). Motivation is seen as a characteristic that an individual presents with at treatment intake and being the first element in the model means it can be hypothesised to influence the entire treatment process, including post-treatment outcomes (Hiller et al., 2002), even if it does so indirectly through engagement in treatment. Hence effective measures and enhancers of motivation are warranted. Motivation is dynamic and changeable (Klinger &
Therefore, there exists opportunities for amending and enhancing offender motivation through intervention in order to improve the effectiveness of treatment programmes designed to reduce the risk of re-offending. However, the dynamic nature of motivation may also mean it is harder to measure accurately.

It was noted that cognitive-behavioural treatment that adheres to the principles of the Risk, Need and Responsivity (RNR) are the most successful in reducing re-offending risk in offenders (Andrews, Bonta & Hoge, 1990). Chapter 1 also introduced the Good Lives Model (GLM; Ward & Brown, 2004; Ward & Stewart, 2003) of offender rehabilitation which is strength-based and focuses on equipping offenders with the skills and capabilities to lead their lives in pro-social ways.

Next, chapter 1 suggested that assessing motivation through a goal based framework may be beneficial. Among other reasons, it was suggested that an impediment to effective treatment is inadequate attention to the context of personal goals (Howells & Day, 2003). For some offenders, their offending behaviour could aid personal goal achievement (Howells & Day, 2003). Therefore, if the goals of treatment are not congruent with the offender’s personal goals then this may be an impediment to readiness to change. Due to the goal directed nature of humans, it is important to assess what goals are personally important to the offender and how this compares with their readiness to change – an offender’s personal goals may be incompatible with those of rehabilitation (Burrowes & Needs, 2009), and goal conflict is an impediment to motivation (Klinger & Cox, 2004d).

Using goals as part of assessment may be motivation enhancing as personally meaningful and relevant material is utilised (Karoly, 1993). Goal based approaches are also congruent with the strength based GLM and also provide an opportunity to explore the GLM which at present lacks empirical evidence (Bonta & Andrews, 2003).
Chapter 1 also introduced the Personal Concerns Inventory – for offenders (PCI-OA; Sellen et al., 2006). The PCI-OA is a potential means of identifying which offenders are most motivated to take part in treatment (Sellen, McMurran, Theodosi, Cox & Klinger, 2009) and which require more help. The PCI-OA also showed potential to boost motivation to seek information on a treatment programme with sex offenders refusing treatment (McMurran & Theodosi, 2006). However, it was noted there were a number of limitations that first needed to be addressed in order to maximise the utility of the PCI-OA with offenders. Limitations included the length of the PCI-OA and offenders’ confusion surrounding some of the rating scales.

Chapter 2 introduced the new generation of the PCI-OA: The Personal Aspirations and Concerns Inventory – for Offenders (PACI-O). The PACI-O is a relatively brief semi-structured interview and asks about aspirations and concerns across six broad life areas (plus an ‘other’ category) that can be divided into 14 subareas. In the PACI-O, there are 8 rating scales (answered from 0 to 10), and two categorical questions, a place to discuss obstacles to goal achievement and a section for discussing how goals either conflict with or complement each other. The PACI-O interview typically takes under an hour to complete and can be implemented by clinicians without specific forensic training. Thus the PACI-O showed potential as a time and cost efficient assessment of offender motivation. Chapter 2 described the amendments made to the PCI-OA and the results of a pilot study with 22 offenders. The research confirmed the suitability of the PACI-O with an offending population and suggested that further work was required to assess its motivation measuring and enhancing qualities.

Chapter 3 detailed the methodology of the Randomised Controlled Trial (RCT) methodology used in a number of studies in this thesis (7 and 8) and the sample characteristics of the offenders who were involved (with the exception of those offenders in the pilot study in chapter 2). Details of the PACI-O procedure were also reported in
chapter 3. All measures used with offenders in the current study (with the exception of the 22 offenders in the pilot study, chapter 2) were collected at the same time; therefore this procedure is applicable to all of the reported studies. The use and potential problems of conducting a RCT in a prison environment were discussed. However, it was concluded that a RCT design was one of the best methods to explore the role of the PACI-O as either a measure or enhancer of offender motivation.

Chapter 4 reported on the the structural and psychometric qualities of the newly adapted PACI-O in a study with 113 adult male offenders at two South Wales prisons. The results suggested that the PACI-O yielded a 3 factor solution. Factor 1 was named ‘adaptive motivation’ due to its similarity to the factor witnessed in previous studies with both offenders and other populations (e.g., Cox, Pothos, & Hosier, in prep; Hosier, 2002; Hosier & Cox 2002; Sellen et al., 2009). Factor 2 revealed a variation of maladaptive motivation which was named ‘learned helplessness/powerlessness’. Factor 3 was named ‘lack of direction’ due to the similarity of it to the Lack Of Direction factor that Sellen et al. (2009) found with the PCI-OA. The study accrued construct validity for PACI-O. Internal reliability testing suggested that the most internally reliable version of the PACI-O for measurement may be the PACI-O items minus the ‘prison and reoffending’ rating scales. However, these scales may add additional information regarding offender motivation for treatment, thus the inclusion of these scale for preliminary studies was justified.

Drieschner and Boomsma (2008) define treatment engagement as “the patient’s behaviour, which is (a) desirable or necessary for the treatment to be effective, and (b) under the patient’s volitional control” (pp 299-300). Chapter 5 detailed the construction and pilot testing of a brief 5 item therapist rated measure of treatment engagement: The Staff Treatment Engagement Questionnaire (STEQ). This scale was designed especially for the studies in this thesis to measure treatment engagement in the cognitive skills prison-
based treatment programme, Enhanced Thinking Skills (ETS). The STEQ demonstrated a degree of construct, predictive and concurrent validity as well as internal reliability.

Chapter 6 examined the relationship between two of the PACI-O factors, adaptive motivation and learned helplessness/powerlessness (LH/P), and treatment engagement. Treatment motivation is thought to predict treatment engagement (Drieschner, Lammers & Van Der Staak, 2004; Hiller et al., 2002). Therefore, the current study aimed to assess the predictive validity of the PACI-O as a measure of treatment motivation. Adaptive motivation was studied due to its predictive validity in other populations. Adaptive motivation has been found to be positively related to readiness to change in substance abusers in treatment (Cox Cox, Blount, Bair & Hosier, 2000). LH/P was a new factor not seen in previous studies with the PACI-O’s predecessors. The mediating processes between exposure to uncontrollable events and the construct of learned helplessness has been studied previously. Mikulincer (1994) has distinguished between two reactions to future uncontrollable events. The first is personal helplessness or lack of self-efficacy, where the individual believes they do not possess the skills and capabilities to evoke the intended outcome. This can occur due to exposure to uncontrollable outcomes and, with offenders, could arise perhaps due to failure on previous treatment programmes. The second reaction is universal helplessness where an individual feels that no response will lead to the desired outcome. LH/P was viewed as a motivational problem in the current study and a potential impediment to treatment engagement. It was found to be negatively correlated to adaptive motivation (chapter 4).

In chapter 6 it was also found that offenders who scored higher on adaptive motivation and lower on LH/P were rated as engaging more in treatment than offenders who were rated lower on adaptive motivation and higher on LH/P (however, this finding
was not true for sex offenders). Thus, some degree of predictive validity for the PACI-O was accrued.

Chapter 7 reported on a RCT with a sample of 111 offenders (although due to attrition rates, only 93 offenders were analysed) to evaluate the effectiveness of the PACI-O as an enhancer of offender motivation for treatment in order to boost treatment engagement and enable offenders to gain maximum treatment benefits. Evidence emerged that the PACI-O interview before treatment could enhance motivation for treatment which resulted in increased treatment engagement and adaptive motivation for general prison population offenders. It also emerged that those sex offenders who completed the PACI-O before treatment had a reduction in impulsivity levels following treatment compared to sex offenders who attended treatment as usual. It was noted that the PACI-O appeared to behave differently with sex offenders than it did with general prison population offenders. This was discussed as potentially being a product of the current research i.e. the small sample of sex offenders in this sample or the PACI-O interview being conducted by different researchers in different prison environments. However, the findings were also discussed in light of potential motivational differences between the two offending samples, the effectiveness of the PACI-O with sex offenders and the effectiveness of the ETS treatment approach with sex offenders. The different findings highlighted the importance of not assuming that, because an enhancer is successful with one population, it will automatically be successful with another population. The heterogeneous mix of different offender groups in the RCT study gave an opportunity to demonstrate this.

In chapter 8, the PACI-O was used as a base to explore offenders’ level of subjective well-being (SWB) and the degree to which they experience their life as meaningful. It was found that offenders SWB raised significantly following a treatment programme, as did the sense of meaningfulness in life. It was also found that completing the PACI-O before attending a treatment programme led to an increase in meaningfulness
in life compared to those offenders that attended treatment alone. The findings from this chapter may be informative as SWB is associated with adaptive motivation, with an alcohol abusing population (Schroer, Fuhrmann, & Jong-Meyer, 2004), and adaptive motivation has been associated with readiness to change with substance abusers (Cox et al., 2000). Despite generally being viewed as a ‘non-criminogenic need’, if such relationships are also true of an offending population, then attending to offenders’ SWB could be beneficial in trying to elicit behaviour change. The attendance to issues such as offender SWB is concordant with a GLM view that states that not only should criminogenic needs be attended to if they interfere with the ability to engage in treatment, but the enhancement and ability to achieve personally meaningful primary human goods may lead to a reduction in criminogenic need (Ward, Vess, Collie, & Gannon, 2006; Ward, Melser and Yates, 2007). Such studies may inform on the development of offender treatment programmes and pinpoint potential obstacles to treatment engagement and change.

9.2 Potential uses of the PACIO

A foundation to explore the current concerns of offenders: The PACI-O could be used by clinicians as a way of building rapport with offenders who are about to attended treatment. Alternatively, the PACI-O could be conducted in addition to offenders’ sentence planning to establish what goals are important to that particular offender and if their goals are congruent with the ethos of behaviour change that prison with try to elicit. This could be advantageous with regard to the insight it gives into what the offender is motivated to achieve and how their offending behaviour assisted them to do this. There is often a logic or purpose as to why offenders do what they do. Offending can reflect the striving for the attainment of specific goals and goods, and what they are striving for can express who they
are and who they want to become (Ward & Marshall, 2007). Through the examination of goals, ways can be sought to assist offenders to achieve personal goals in a pro-social way.

Additionally, completing the PACI-O with offenders may lead to increased therapeutic alliance. Therapeutic alliance is one of the components of treatment engagement in the MORM (Ward et al., 2004). Examination of the construct of therapeutic alliance may help extend research into offender motivation for therapy whilst enriching and enhancing offender treatment programmes (McMurran, Theodosi, & Sellen, 2006).

In chapter 3, results were presented regarding how offenders in the current sample rated goals in different life areas of the PACI-O. This illustrated in what life areas offenders in the current sample felt goals were more important, which goals they were most committed to and which goals they felt were least likely to happen and which elicited a sense of a lack of control. The chapter also detailed which areas offenders see the criminal justice system and any future re-offending behaviour helping or interfering most in goal achievement. This could be used by practitioners to identify obstacles and barriers to change.

Obstacles and barriers to treatment, such as problems with substance abuse, or feelings that prison and treatment will not benefit them could be identified via the PACI-O and remedial action taken where necessary. Certain goal characteristics may increase or decrease motivation to engage in therapy and achieve the treatment goals - unfavourable goal characteristics may lead to the development of clinical symptoms and decreased treatment motivation (Michalak & Grosse Holtforth, 2006).

The scope and range of an offender’s goals can also be assessed with the PACI-O. According to the GLM, a range of goals need to be pursued (Ward & Marshall 2007). Problems may arise when an offender fails to seek full range of human goods (Ward,
2002). Other goal structure problems such as goals that are unrealistic, the presence of goal conflict or an over-reliance on avoidance, as opposed to approach goals can also be explored with the PACI-O. Such problematic goal structures are likely to lead to decreased motivation (Klinger & Cox, 2004d; Locke, 1996; Ward et al., 2006).

It may be imperative to examine the suitability of the offenders' personal goals. An offender may have an ‘adaptive’ motivation structure (in terms of how he/she rates their personal goals), however there would be little to be gained from pursuing such personal goals if they were unrealistic or criminal in nature. For example, in the current study, an offender expressed an intention to work as a security guard despite the fact that he had a conviction for fraud. Another offender wished to be reunited with a girlfriend for whom he was serving a prison sentence for beating. It may be important that unrealistic expectations are addressed (Burrowes & Needs, 2009)

Nevertheless, most offenders in the current studies expressed a number of pro-social realistic goals such as gaining employment and finding suitable accommodation. This mirrored the findings from McMurran, Theodosi, Sweeny and Sellens’ (2008) qualitative account of the nature of offenders’ goals (recorded with the PCI-OA) where participants expressed a number of positive anti-criminal goals such as having finding accommodation, acquiring employment, quitting substance abuse and improving self-control.

When it comes to assessing a clients goals, Michalak & Grosse Holtforth (2006) suggest that therapists should 1/ make sure the goals are attainable 2/ long-term goals are divided into more concrete short-term goals 3/ implementation intentions are clear (how to overcome obstacles, when and where the goal can be pursued etc) 4/ goals should be approach rather than avoidant 5/ self-regulatory capabilities are supported 5/ there should be a supportive social environment and finally 6/ goals should be measureable.
It is hard to quantify exactly what a ‘healthy’ or adaptive set of goals should look like through the PACI-O as each offender’s conception of a ‘good life’ is likely to differ. Ward & Marshall (2007) state that although it is likely all goods need to be present to evoke a sense of well-being, it is typically the case that the weight given to various goods fluctuates from person to person. Future studies could assess which of the offenders in the current studies went on to refrain from re-offending. Their goal structures could then be examined retrospectively to assess if there were any features of their motivation that was common to all those who ceased offending. However, such a study would suffer from the fact that it is retrospective and a number of factors, other than motivation, could have led to the witnessed change.

9.3 The PACI-O as a measure of offender motivation

Sellen et al. (2009) note that it is likely to be motivation structure, rather than the identified goals per se that is important in determining motivation to change. The PACI-O does this through the calculation of an adaptive (AM$_{PACI-O}$) and learned helplessness/powerlessness (LH/P) index. These indices of hypothesised offender motivation can be used for prediction. The current study was the first empirically test the relationship between the factors of the PACI-O and degree of treatment engagement.

Day et al. (2009) suggest to minimise potential attrition it may be helpful to assess how likely offenders are to engage in treatment before they attend the programme. The PACI-O has demonstrated potential as a measure of which offenders are motivated for treatment (and hence more likely to engage in treatment) and those which require additional help before treatment commencement. It is suggested that the PACI-O alone could not solely predict who would be likely to engage in treatment as there are other internal and external conditions that need to be present before an offender is ‘ready’ for treatment and change. Thus, it would be recommended that the PACI-O be issued
alongside other measures of treatment readiness such as the Corrections Victoria Treatment Readiness Questionnaire (CVTRQ; Casey, Day, Howells & Ward, 2007) which is a measure of treatment readiness based on the theoretical Multifactor Offender Readiness Model (MORM; Ward et al., 2004).

The PACI-O may supplement the CVTRQ and be able to further explore volitional aspects of the MORM. This may give a well-rounded ‘snapshot’ of offender readiness before treatment. However, it must also be remembered that internal and external factors can weaken or strengthen volitional factors throughout the treatment and change process (Casey et al., 2007), as well as internal and external factors impacting on other readiness conditions throughout the process. The problem with the fluctuating nature of motivation, is that a one-off assessment of motivation with the PACI-O may have limited potential as it does not predict if someone with high motivation will maintain that motivation throughout the process and forevermore. Measures of motivation and readiness may be required at different points during treatment, to ensure that any obstacles and barriers to treatment engagement are acknowledged and addressed where possible. This would also allow for the implementation of motivation enhancement intervention throughout the treatment when necessary.

Another potential problem with measuring motivation with the PACI-O is that it does not hypothesise as to whether the acquisition of adaptive motivation is a linear process, or if lapses and drops in adaptive motivation should be expected throughout the process before change. An offender may present with high motivation but this does not mean that this motivation will remain high throughout the treatment process and lead to change. Therefore, a one off measurement with the PACI-O may lack long-term predictive validity. As suggested, assessment of motivation, as well as other readiness factors should take place throughout the proposed change process.
Despite these caveats, the PACI-O may also be a useful indicator of how treatment is progressing. It would be expected that positive motivational shifts (i.e. increased adaptive motivation and reduced LH/P) would be witnessed as the treatment programme progressed. Those offenders who were not progressing could be assessed to see if they require motivational intervention or if there are any other impediments to them gaining all they can for the treatment programme. Nevertheless, positive changes on the PACI-O indexes could represent repetition of the PACI-O as opposed to the treatment programme.

It must be noted that the motivational assessment with the PACI-O may not be equally useful with all offenders. In one of the thesis studies (chapter 6) the PACI-O was not related to treatment engagement. Reasons for this were discussed, for example readiness factors other than motivation (e.g. the programme suitability or the absence of one of the internal determinants of motivation, namely problem recognition) resulted in sex offenders treatment engagement score not correlating to their treatment engagement score. However, it was also noted that the PACI-O may not be able to measure motivation with a sex offending population. This could be due to impression management issues or the PACI-O not being sensitive enough to accurately assess treatment motivation with this population. Additionally, chapter 7 demonstrated how the PACI-O could lead to reduced impulsivity following treatment for sex offenders but not increased adaptive motivation. Thus, treatment benefits were accrued without adaptive motivation being boosted during ETS. This calls into question the utility and predictive validity of adaptive motivation with a sex offending population.

Future research also needs to assess if the PACI-O should be a measure of motivation which does not include questions pertaining to prison and reoffending behaviour. This would be the most psychometrically robust. The importance, likelihood, control, happiness, commitment and knowledge scales could be used to measure
motivation while the prison and reoffending scales are used as discussion points with
the offenders. These six scales could be used to reliably measure adaptive motivation in an
offender population. However, despite being a reliable measure, this fails to take into
consideration how the offender sees the criminal justice system impacting on their goals
(the ‘prison helps’ scale also loads onto AM in the PACI-O).

Additionally, the PACI-O scales minus the prison and reoffending scales, failed to
be related to treatment engagement. Therefore, the inclusion of the prison scale on adaptive
motivation adds a predictive quality that the other scales alone do not. The ‘prison helps’
rating scale may be a measure of belief in the degree to which an offender believes a prison
treatment programme can help them to achieve their personal goals. Outcome expectancy
is one of the internal cognitive determinants thought to underpin treatment motivation
(Drieschner et al., 2004). Thus, the inclusion of the prison helping scale on the adaptive
motivation index may be warranted. In sum, the inclusion of the prison and re-offending
rating scales reduces internal reliability but increases predictive validity.

A potential reason why the adaptive motivation factor did not display internal
reliability in the current study is that sex offenders and general prison population offenders
were amalgamated for factor analysis. The PACI-O behaved differently with each of these
populations in terms of its ability to measure and enhance motivation. Therefore, there is
no reason to assume these populations regard the ability of prison, or prison treatment
programmes, to help them to achieve their goals in a similar fashion. Thus future studies
should look to conducting factor analysis on each of these populations separately and then
a full assessment of the factor structure and psychometrics conducted.

Adaptive motivation is thought to be associated with readiness to change, better
immediate responses and better long-term outcomes in treatment (e.g. Cox & Klinger,
2002; Cox et al., 2000). However, this link has yet to be established with offenders. As
noted, ‘readiness to change’ was measured with the URICA in Cox et al.’s study and this tool may have limited validity with an offending population (McMurran et al., 1998, McMurran et al., 2006; Casey, Day & Howells, 2005). Nevertheless, there exists a need to understand the relationship between an adaptive motivation structure and ‘readiness’ using more valid assessments of readiness with offenders. Additionally, the predictive qualities of the URICA and adaptive motivation factor of the PACI-O should be compared in future studies. Problems arise when attempting to compare measurement tools and results across studies due to different conceptualisations of the word ‘readiness’. Some interpret this as readiness for treatment whereas others refer to readiness for change. Despite being related, there exists a difference between the two concepts.

In previous studies, motivation structure has not been shown to be correlated with recidivism (Sellen et al., 2009). However, the changes made to the PACI-O mean there is renewed potential to directly re-assess the relationship between motivation structure and recidivism. However, Wormith et al. (2007) note that recidivism is a “unifying concept without a unifying definition” (p880), i.e., for some it is defined as re-incarceration for any reason; for others it means re-arrest for any reason. They also note that treatment studies have rarely considered severity of recidivism instead of the dichotomous approach. They conclude that to glean further insight into “what works” a more refined and sensitive outcome measure is needed. Additionally, it has been suggested in this thesis that the PACI-O is an assessment of offender treatment motivation rather than motivation to change, as per the treatment interaction hypothesis (Deleon et al., 2000). However, future studies could assess if higher levels of general motivation, as measured by the PACI-O, could be related to lower incidences of recidivism.

A potential limitation of the current studies is that the PACI-O has shown itself to be a potential enhancer of offender motivation (chapter 7); therefore there exists doubts about whether it can be an accurate measurement. If by the very act of completing the
PACI-O it changes the level of motivation, then reliable measurement is unlikely. This is a quandary that has persisted since the development of the PCI-OA (Sellen et al., 2009). Overall, the evidence suggests the PACI-O may have most use as a motivation enhancer which can give an initial assessment of the current motivational structure of the offender. As a result of identifying any maladaptive patterns, the PACI-O can then be utilised as a base for motivational counselling and subsequent further motivation enhancement intervention. This initial assessment of motivation may allow for predictions of treatment engagement when conducted alongside other measurement instruments (such as the CVTRQ). A reliable measure refers to an instrument that will produce a consistent score from one occasion to another (Clark-Carter, 1997). As well as difficulties measuring motivation with the PACI-O due to its inherent motivation enhancing qualities, measuring a dynamic construct like motivation may be difficult itself due to its fluid dynamic nature (Klinger & Cox, 2004b). Therefore, the PACI-O may never be a consistent ‘measure’ of offender motivation.

The PACI-O may inform on the likelihood of an offender to engage in treatment by judging the presence or lack of any maladaptive motivation patterns. This can be assessed alongside other measures of treatment readiness in order to gain a better insight into the likelihood of treatment engagement. Such a method could compliment other measures of motivation such as therapist ratings and offender declarations of motivation. A potential impediment to engagement such as LH/P may not be picked up by methods such as therapist ratings as the offender will appear to be fully ready for treatment (i.e. by declaring the importance of goals, how re-offending won’t help, how committed they are to goals and how much happiness goal achievement would bring) yet may be harbouring potentially damaging cognitions (such as a feeling of lack of control over goals, a belief that goals are unlikely to be achieved and a feeling that prison won’t help). The PACI-O may help provide an explanation as to why some offenders do not engage in treatment and
change. High adaptive motivation may just represent the lack of one obstacle to treatment i.e., a sense of learned helplessness or powerlessness. Ward et al. (2004) note that volition involves the formation of an intention to pursue a certain goal and the implementation of a plan to achieve that goal. Aspects of volition also include the belief that one is capable of exercising choice and can directly control important personal outcomes. A simple self-report questionnaire may be inadequate to measure the construct of volition (Casey et al. 2007), and the PACI-O provides a base for a more in-depth analysis of these processes and serve as an opportunity to identify impediments to motivation.

These assumptions are speculative at present and further attention is required to draw any concrete conclusion. By the same token, it could also be plausible that offenders with high LH/P may wish to engage more in treatment in order to develop the skills required to achieve goals and thus raise self-efficacy (as opposed to those offenders who have high adaptive motivation and are already feeling confident that goal achievement will be possible). That is unless the main source of the offenders LH/P comes from a sense of universal helplessness, whereby they feel regardless of any skills they possess, the desired outcome would still not be achieved. This type of helplessness comes from a discrepancy between behaviour in the past and witnessed outcomes (Mikulincer, 1994).

9.4 The PACI-O and treatment motivation

A fundamental question regarding the potential use of the PACI-O as a measure of offender motivation is “why would a measure of motivation for personal goals be representative of motivation for treatment (and a predictor of treatment engagement)?”

Firstly, it could be argued that an offender’s general motivation structure reflects how they would intend to approach the treatment goal of engaging in treatment and learning the skills needed to lead a pro-social life. The PACI-O may inform on the
likelihood of an offender to engage in treatment by judging the presence, or lack, of any maladaptive motivation patterns that would prove an obstacle to treatment success (i.e. learned helplessness or powerlessness). If an offender lacks feelings of efficacy and control regarding their personal goals then this may extrapolate to how they approach the treatment goal and this thinking style could be an impediment to engagement. When a person believes their actions in general are unlikely to affect outcomes, they will be unlikely to try to change; and by the same token, the likelihood that someone will try to take action is driven more by perceived ability than actual competence (Lopez Viets, Walker & Miller, 2002).

Secondly, Cox et al. (2000) note that an important determinant of the balance between positive and negative affective expectancy is the degree to which the individual expects to obtain emotional satisfaction from other life areas if they change their problem behaviour. Thus, an individual will be motivated to change if they anticipate finding satisfaction in alternatives to the problem behaviour (in this case offending) and does not expect unbearable discomfort as a result of ceasing the problem behaviour (Cox et al., 2000). From this viewpoint, motivational structure is seen as a mediator of anticipated emotional satisfaction. Therefore, those offenders who expect to achieve important life goals from which they will gain emotional satisfaction will be more likely to be ‘ready’ to engage in a treatment programme to learn new skills to enable them to live a pro-social life.

The above two reasons are based on the assumption that the treatment goal (bringing about cognitive change that will lead to a reduction in the risk of re-offending) is congruent with the offender’s personal goals. From this standpoint, it may be logical to suggest that if the treatment goal was not congruent with their personal goals then the PACI-O would not measure motivation for treatment. An offender may score high for adaptive motivation regarding his/her own personal goals, however if he/she does not wish
to engage in treatment or change then this measure of (positive adaptive) motivation will not be relevant to their treatment motivation.

For clarification, a fictional case of an offender named Jim will be used. Jim is a violent offender being sent to attend a cognitive skills offender treatment programme. Jim completed the PACI-O a week before attending treatment. Examination of his goals revealed that that he has three specific goals: to spend time with his friends, to find a girlfriend and to play darts on the weekend. He scored high on adaptive motivation and feels his personal goals are both important and attainable – thus he is deemed by the clinician to have ‘good’ motivation, and ready for treatment. If Jim believes that by engaging in the prison treatment programme and changing his behaviour will lead to enhancement of his personal goal achievements (e.g. by not losing his temper with his friends, by not “scaring women off” and by being able to pursue his hobby without getting into fights every Saturday night) then this adaptive motivation is likely to be applicable to the treatment goal and, given other readiness conditions, Jim can be hypothesised to be likely to engage in treatment. However, if Jim feels that by engaging in treatment and changing it will conflict with his personal goals (e.g. by his mates going off him as they think he’s “soft”, by the woman he’s interested in going off with a “tougher” rival and by taking away the pleasure or the rush he feels fighting every Saturday night) then this adaptive motivation measured by the PACI-O will not be representative of his motivation for treatment and change.

Therefore, the PACI-O may have potential to measure motivation for any goal, whether that is motivation for engaging in treatment or motivation for change, as long as it is congruent with the individual’s personal goals and there is belief that successful outcomes can be achieved. If treatment engagement and subsequent change is congruent with the offender’s personal goals the PACI-O may measure motivation for treatment and
change. If there is a disparity, then the PACI-O will not measure that particular offender’s treatment motivation or motivation for change.

It must also be acknowledged that an offender may hold adaptive motivation for some goals, but feel a sense of helplessness for others, such as a treatment programme, due to the circumstances (e.g. the suitability of the treatment approach or the group dynamic).

Additionally, motivation can be specific to a particular course of action, for example an offender may be unmotivated for one type of treatment or change, but quite willing to participate in another (Lopez Viets et al., 2002). Thus, while motivation structure as measured by the PACI-O may be imperative, it must also be considered in the context to which it is being applied.

Motivation measured before treatment may represent motivation to engage in treatment (in order to learn the skills needed to successfully change behaviour), then as a result of treatment, the goal of engaging in treatment is relinquished and the new goal becomes sustained behaviour change. Motivation for treatment may become motivation to change as a result of the treatment programme. This is also congruent with the thinking that an offender may be extrinsically motivated for treatment (due to it being a requirement of release) and once in treatment, intrinsic motivation for change may be instilled.

One way of potentially assessing if treatment goals (engagement leading to behaviour change) are congruent with personal goals is the ‘prison helping’ rating scale of the PACI-O. For example, the scale may help assess if the offender believes the action of engagement and change (the treatment goals) would assist their personal goals. This could explain the predictive quality seen when this scale is included in the adaptive motivation factor.
Again, the above is speculation generated for discussion and would require further study. A potential future study could be to amend the prison helping scale to specifically ask whether the offender believes that engaging in treatment and changing will assist them in their personal goal strivings. As previously stated, Howells & Day (2003) claim if the goals of treatment are not congruent with the offender’s personal goals then this may be an impediment to readiness to change. If personal goals are not found to be congruent with the treatment goal then motivational work could be undertaken to demonstrate to the offender how personal goals can be achieved via pro-social means. The benefits of changing versus the costs of a continued offending lifestyle could be highlighted. The aim of this would be to ensure that the treatment goal was amenable with the offender’s personal goals, thus removing a potential impediment to readiness.

9.5 The PACI-O as a motivation enhancer

The additional focus on personal life goals before treatment may prove motivating to some offenders. Despite not delivering a therapy per se, some offenders found that it helped them to think clearer and plan for the future (chapter 3).

Motivation can be viewed as a matter of probabilities i.e. how likely it is that the offender will initiate and persist in a particular action (Lopez Viets et al., 2002). The PACI-O, with its focus on goals and ability to increase feelings of meaningfulness in life (in conjunction with ETS treatment), may be intrinsically motivating. Intrinsic motivation should be enhanced during treatment as intrinsic motivation is associated with better treatment outcomes and long-term change (Deci & Ryan, 2000). Despite the possibility of coercing behaviour change, intrinsically motivated change is more enduring (Lopez Viets et al., 2002).

Motivation for treatment is thought to predict treatment engagement (Drieschner et al., 2004; Ward et al., 2004). Thus, the PACI-O’s effectiveness as a motivation enhancer
was judged against the degree to which it could motivate offenders to engage in
treatment and derive positive benefits from the programme i.e. a reduction in criminogenic
need and an increased adaptive motivation structure (hypothesised to be positively related
to readiness to make behavioural changes). Chapter 7 demonstrated how the PACI-O
before treatment can increase treatment engagement and adaptive motivation above and
beyond what treatment alone can do for general prison population offenders. It was also
found that the PACI-O before treatment led to increased reductions in a criminogenic need
(impulsivity) compared to those who attended treatment alone for sex offenders.

Despite not all the hypotheses being supported, all the shifts were in the
hypothesised direction, with some decent effect sizes found. Hence, the PACI-O shows
that it has potential as a motivation enhancer. The PACI-O could be used as a pre-
treatment motivation enhancer. Or, it could be used during a treatment programme,
especially for those with low motivation (and high risk offenders) to maintain motivation
at adequately high levels to allow treatment to interact with the motivation and elicit
change. The change process may be different for each individual and remedial action may
be necessary throughout an intervention programme (Burrowes & Needs, 2009). Barriers
to engagement and change can move or appear at any time and there may be lapses and
periods where change occurs quicker than other times. Mid-treatment motivation
enhancers may maintain motivation during treatment and discourage drop-outs, which can
lead to detrimental effects. Alternatively, the PACIO could be a brief intervention in and of
itself.

The PACI-O is brief and time efficient so it can be used repeatedly by
administrators with no specific forensic training. The PACI-O may be useful for offenders
at parole to encourage focus on important personal goals and maintain adequate levels of
motivation to conduct their lives in pro-social ways. Unless the learning from prison
treatment programmes is reinforced after completion, then much of the benefit may be lost
Thus the PACI-O could be used at probation to maintain offenders focus on what their goals are and how treatment helped and equipped them with the skills they needed to achieve their goals. Any changes made during treatment needs to be turned into long-term change. An offender may feel confident that they can change in the short-term; however, they may lack confidence in maintaining this change (Burrowes & Needs, 2009). The PACI-O is currently being piloted with probationers in South Wales to help build rapport between offender managers and offenders who are on ‘intensive supervisions alternatives to custody’. A new pilot project to test the feasibility of giving offenders intensive control orders to serve in the community as opposed to serving a prison sentence.

Pretreatment intervention has been shown to reduce treatment drop-outs. Lee at al. (2006) reduced the drop-out rates of sex offenders in treatment by enhancing the offenders’ motivation for treatment via providing individual treatment before attending group treatment (in order to get the offenders to accept they needed to work on their problems). Using the PACI-O, resources could be targeted at those offenders who display known risk factors for dropping out of treatment (for example, aggression, hostility and rule violating behaviour) in order to encourage retention in the programme.

The motivation enhancing qualities of the PACI-O demonstrated different effects with general prison and sex offending populations. Therefore, future work needs to explore the relative utility of the PACI-O with different offender groups. Currently a study is underway to assess if the PACI-O, compared to other interventions, is most effective in motivating offenders to undertake a sex offender treatment programme (James, in preparation). Work is also being undertaken using the PACI-O with young offenders in prison. This pilot work is looking at whether the PACI-O can motivate the offenders to improve their regime status, their satisfaction with life and to participate in activities on the young persons unit within the prison (Kearney, in preparation). Finally, the PACI-O is
being used to explore motivation for employment with offenders with short-term (under 12 months) sentences (Nekovarova, in preparation). Hence, work is already underway exploring the PACI-O’s usefulness with other offending populations. Finally, the studies in this thesis were conducted on adult, mainly white British, male offenders. Studies need to be conducted in minority prison populations such as those who come from other cultures and also females.

On completion of further exploratory studies, the PACI-O’s motivation enhancement qualities could be boosted by developing a Systematic Motivational Counseling (SMC; Cox & Klinger, 2004c) type of intervention. SMC has shown favourable results with a number of populations. This technique would use the goals identified in the PACI-O as a framework for therapy. With SMC, maladaptive profiles are identified and targeted for change (Cox & Klinger, 2004c). This technique when conducted on an individual and group basis has shown favourable results with a number of populations including substance abusers, and persons with psychosis and personality disorders (Cox & Klinger, 2004c). A brief and efficient motivational enhancement intervention may be of considerable use to offender management services. McMurrann (2004) notes that components of SMC - namely goal setting e.g. breaking down large goals into manageable pursuits and encouraging work on goals between sessions - has already demonstrated promise when working with offenders. Therefore, the development of the PACI-O into a foundation for SMC may be an important future development.

9.6 Benefits and strengths of the PACI-O approach

The PACI-O could be of use to offender management services as it is a standardised, brief motivation assessment and enhancer that can be implemented by clinicians with no formal forensic training. Given the importance of offenders engaging
and completing treatment, the PACI-O could be a time and cost-efficient addition to offender management’s repertoire of rehabilitation methods.

Volitional aspects of the MORM can be explored with the PACI-O as well as some of the internal determinants of motivation (i.e. outcome expectancy and perceived suitability of treatment) in order to make predictions as to which offenders are more likely to engage in treatment and change. The PACI-O examines the content of offenders’ goals and the means in which they approach such goals (adaptively or maladaptively) and has potential to inform on the likelihood of an offenders engaging in treatment.

9.7 The PACI-O and the GLM

It was stated that the PACI-O may be useful in operationalising the GLM for practical application and accruing support for the model via empirical investigations (McMurran & Ward, 2004). The current study has added some support for the GLM in that a focus on offender goals led to improved treatment engagement in a treatment programme. The PACI-O also improved the effectiveness of ETS treatment in the form of reductions in the criminogenic need of impulsivity for the sex offenders. ETS is a cognitive skills programme developed on the RNR principles, and an additional focus on goals led to increased effectiveness for some offenders. The life areas of the PACI-O share some overlap with the primary human goods stated by the GLM (see chapter 1 and 2), therefore the PACI-O taps areas relevant to offender rehabilitation. Thus, it could be argued that attention to primary human goods before treatment led to the increased treatment benefits. This would be consistent with the thinking that the GLM could supplement (not replace) the RNR model to bring about improved treatment effectiveness. However, these were preliminary studies and future work needs to assess if the short-term measures of treatment success seen in this thesis translate into real-world behaviour change.
9.8 Additional limitations of the current studies

Some limitations of the studies have been discussed above, as well as in the relevant thesis chapters. However, some additional limitations are attended to here. This chapter discussed how adaptive motivation (and other factor) scores could be calculated and used to make predictions regarding a prisoner’s motivation for treatment. However, there is a danger in solely using mean rating scales as a predictor. A prisoner with one goal could have the same adaptive motivation score as a prisoner with 10 goals; however their motivation structure may be fundamentally different. As noted, a good lives plan is a plan that contains all the primary human goods and means of achieving them in line with an offender’s preferences, abilities and environment (Ward et al., 2006) and one way problems arise for an offender is when they fail to seek the full range of human goods (Ward, 2002). Therefore, a prisoner displaying only one goal (despite rating it high) may not be displaying an overly ‘adaptive’ motivation structure. This potential problem would be obscured by simply using only the adaptive motivation factor score.

Additionally, a high adaptive motivation score means that the majority of the offender’s goals are rated as highly important, likely to happen and that there is a high commitment towards such goals etc. However, realistically, not all goals should be equally important and elicit the same degree of commitment. For example, the recreational goal of playing football on the weekend should not logically be rated as highly important as a goal for addressing offending behaviour. It could reasonably be expected that there should be variability in the ratings between different goals, thus lowering adaptive motivation score. Therefore, it could be argued that it may be more ‘adaptive’ to have a slightly lower adaptive motivation score than an offender who fails to prioritise his goals and sees each striving as equally important.
Another limitation is that in the current studies, the same sample of offenders was used for all of the studies (with the exception of the pilot study). Therefore, due to the number of analyses conducted, there is a danger that some findings could come out significant due to chance alone. Ideally, each study would have utilised a different cohort of offenders. However, the immediate step following the construction of the PACI-O was the testing of its psychometrics properties. This involved interviews with over 100 offenders in a prison environment. Interviewing offenders in a prison environment can be a timely process due to the restricted times when the researcher had access to the participants. Therefore, due to time and practical restrictions, the researcher used this same sample of offenders for the initial investigations of the PACI-O presented in this thesis. These are understood as preliminary investigations; however they inform on some of the potential uses of the PACI-O and provide recommendations for future studies in order to further understand offender motivation.

Next, the amalgamation of the PCI-OA life areas into wider life areas to make the PACI-O means it is harder to assess exactly what part of the life area elicited most goals (i.e. was it 'employment', training' or 'finances' that made offenders score the area of 'employment, training and finances' so highly for importance?). This can be answered by further inspection of the data; however, it may not be immediately apparent to the naïve reader.

Another potential limitation is the difficulty in comparing the current study to other studies due to the differential use of terminology. Past studies examining motivation have been criticised due to definitions and criteria for measurement being ill defined (Barrett et al., 2003). Klinger & Cox (2004a) note the importance of clearly defining what is meant by 'motivation' by each researcher or author. Willingness to enter, take part and complete treatment is often seen as representative of motivation to change; although this more
accurately describes motivation for treatment, it can be indicative of motivation for
change (McMurran, 2004). The current thesis has talked mainly of motivation for
treatment, with the assumption that successful engagement in treatment will lead to
motivation to change (or enhanced motivation to change). Burrowes & Needs (2009) also
note problems with definitions – they call for clarification regarding what the term
‘readiness to change’ actually means and how is it different from ‘readiness for treatment’.
They state this also leads to questions as to whether an offender needs to be ready for
treatment, ready for change or both in order to be a suitable candidate for offender
treatment programmes. In reality, it is likely that motivation for treatment and motivation
for change can exist in isolation of each other (some may be motivated for one but not the
other), but for many offenders motivation for treatment is likely to be a proxy for
motivation for change and the motivation for both behaviours co-occur. Nevertheless, it
may be difficult to compare studies and instruments that are derived from different
theoretical frameworks that use different units of measurement and different definitions of
constructs.

Finally, the importance of pre-treatment motivation requires further exploration.
Evidence suggests that pre-treatment intrinsic motivation may not always be necessary for
treatment success and an offender’s goals can be changed by therapy (McMurran, 2002).
An offender may present with little intrinsic motivation at the beginning of treatment,
however the hope is that through engagement with the treatment programme this
motivation will develop (Day, Tucker & Howells, 2004). Therefore, if pre-treatment
motivation is not necessary to achieve treatment goals then this calls into question the use
of a pre-treatment motivation measure. Nevertheless, the PACI-O interview allows an
assessment of offender motivation that may highlight potential motivation structure
problems such as LH/P which could be an impediment to treatment engagement.
9.9 Practical issues that need to supplement motivation to change

There are practical barriers to change such as money, health and time (Burrowes & Needs, 2009). While motivation for treatment and change is important in bringing about real-world behaviour change, it also needs to be supplemented with practical and social help to be effective. Recidivists tended to have poor social support, antisocial lifestyles, and poor self-management strategies (Hanson & Harris, 2000). O’Neil (2002) identified nine factors that have a large impact on reoffending these are: education, employment, drug and alcohol misuse, mental and physical health, attitudes and self-control, institutionalisation and life-skills, housing, financial support and debt, and family networks. The help that offenders receive socially and practically may help to maintain motivation levels and resolve obstacles to progress (Maguire & Raynor, 2006). It is likely to be a two-way process as Maguire & Raynor (2006) note offenders who are adequately motivated are more likely to make use of whatever help is available and be able to overcome and obstacles on release. A multitude of agencies are encouraged to work together to move offenders back into the community (police, probation, mental health agencies and clinicians; Wormith et al., 2007).

9.10 Additional future studies

A number of ideas for future studies with the PACI-O have been discussed above. Future studies have also been suggested in the individual chapters. Some of these suggestions are detailed below.

Further investigation of the adaptive motivation, learned helplessness/powerlessness and lack of direction factors in the PACI-O is required. The psychometrics of these scales are not deemed internally reliable against Kline’s (1993) 0.7 benchmark. To ensure that these indices reach the required standard in future, re-wording
of the prison and re-offending scale may be required. As noted earlier, a potential change is to make the prison rating scale ask specifically about whether the offender believes a prison treatment programme will affect their current goals. It is also recommended that factor analysis is conducted on the general prison and sex offending sample separately due to the potential different impact of the PACI-O on these two populations. Additionally, the data that was factor analysed in the current studies was from offenders who were homogenous in terms of that they had all been selected for ETS treatment. While such homogeneity may have been an advantage for the RCT design, it may have biased the factor analysis by looking only at offenders who were deemed to be somewhat motivated (otherwise they would not have been selected for treatment). Factor analysis in the future should try to include offenders both motivated and not motivated for treatment and change.

Further work is also required on the LH/P Index. The factor is characterised by ratings of goal importance, commitment, happiness and re-offending interfering and negative ratings on control, likelihood and prison helping (thus hypothesised to represent an attitude of learned helplessness). However, the negative loadings on the factor make the calculation of a representative index difficult. The negative correlation between the AM (PACI-O) Index and the LH/P Index suggest the LH/P Index is measuring the construct of learned helplessness/powerlessness as measured by the PACI-O, however further work is required to confirm this. One way of confirming the LH/P Index as a valid measure of offender learned helplessness is to further assess its predictive validity.

Jones (2002) discussed the complex relationship between self-efficacy (or personal helplessness; Mikulincer, 1994) and ‘readiness to change’. They argue that McMurran et al. (1998) found a correlation between the action scale of the Stages of Change questionnaire and self-efficacy. However, high levels of self-efficacy have also been witnessed in a sample of problem drinkers in the pre-contemplation stage (DiClemente &
Hughes, 1990). It is suggested that this was due to denial or minimisation in these clients (Jones, 2002). Jones (2002) argues that self-efficacy is best understood depending on whether it is either criminogenic or non-criminogenic. If efficacy enhancement is linked with offending behaviour then it is likely that there would be a correlation between self-efficacy and the precontemplation stage (change may result in a loss of self-efficacy). Whereas, if efficacy enhancement was linked with pro-social behaviours and values then one could expect a correlation between self-efficacy and the action or maintenance stage of change. The PACI-O purports to assess pro-social goals therefore an offender’s self-efficacy should be related to the action or maintenance stage of change. Adaptive motivation (where offenders feel efficacy towards their pro-social goals) should correlate to the action or maintenance stage of change. Sellen et al (2009) found that adaptive motivation (as measured by the PCI-OA) was significantly correlated to the action stage of the URICA (McConnaughy, Prochaska, & Velicer, 1983; McConnaughy, DiClemente, Prochaska, & Velicer, 1989) with offenders. Thus, an offender’s LH/P Index should negatively correlate to the action or maintenance stage of change as measured by the URICA.

The PACI-O also needs to be explored using other types of studies such as quasi-experimental designs and qualitative studies. This will help accrue evidence for its utility in a real-world setting. Internal validity is maximised in a RCT (by adhering to strict sampling criteria and rigorous control of the intervention) sometimes at the expense of external validity (Hollin, 2008). Thus, the control of the intervention may create an unnatural environment that is unfeasible in the real world. There are also practical and ethical problems associated with such a RCT methodology in prison (chapter 3). Hollin (2008) argues against RCTs being the only way to acquire knowledge on the effectiveness of an intervention. So while RCTs definitely have their place in criminal justice research, a
range of research designs (both quantitative and qualitative) are needed to evaluate interventions.

Treatment engagement was measured and enhanced for the ETS treatment programme, therefore generalising to other treatment programmes may be limited. However, cognitive behavioural programmes are often used with offenders in prison; therefore the current results may be extrapolated somewhat to other CBT programmes. However, it is advised that the PACI-O’s ability to measure and enhance treatment motivation is explored with other treatment programmes, especially with sex offenders attending specialised sex offender treatment. Broader measures of treatment engagement should also be employed to explore the predictive validity of the PACI-O. Drieschner & Boomsma’s (2008) Treatment Engagement Rating (TER) scale is a new reliable and valid 20-item therapist rated instrument that measures treatment engagement in forensic outpatients. The TER was not available at the time of the current research; however, future studies could assess utility of this scale to measure engagement in prison-based treatment.

One of the hypothesised benefits of enhancing motivation for treatment and increasing engagement was the deterrent of treatment drop-outs. The numbers of treatment drop-outs in the current study were too few for statistical analysis. However, this is something that warrants attention the future. Additionally, the issue of treatment drop-outs may be more relevant in a community setting, rather than in prison where offenders are mandated to treatment. It needs to be clear whether the benefits of enhancing motivation for treatment come about via discouraging drop-outs or whether the level of engagement is indeed related to treatment outcome i.e. the higher the treatment engagement the more the treatment benefits (reduction in criminogenic needs and reductions in re-offending).

Further work is also needed to assess the relationship between treatment motivation, treatment engagement, changes in dynamic risk and behavioural changes.
However, it must be acknowledged that that a simple linear relationship is unlikely to be apparent due to the myriad of factors that can affect motivation at any stage of the process, and the dynamic nature of other readiness variables. Burrowes & Needs (2009) note under the the Readiness to Change Framework that readiness is non-linear and dynamic and influenced by a number of internal and external factors. Such factors would include the internal and external factors identified by the multifactor offender readiness model (Ward et al., 2004) plus the internal determinants hypothesised to underlie motivation for treatment, and the effectiveness of the treatment approach with the population under study (Drieschner et al., 2004).

It may be informative to assess the relative role of treatment motivation, engagement, and reductions in risk in the change process, while also assessing their impact on other stages in the change process. The mechanisms of change need examination in order to enhance these processes to encourage lasting behaviour change. Potential future studies involve an examination of the mediators and moderators of change, whether it be treatment engagement or motivation structure (See chapter 6 & 7 for a further discussion on this).

Another avenue for future study is additional attention to some of the external factors that could impact on treatment motivation, such as the group environment. Beech & Fordham (1997) note that there are features of a treatment group that are more likely to elicit a positive change such as: cohesiveness, good leadership, an organised group, an environment where members could freely express themselves and a sense of hope being instilled in the members. However, feedback from some of the offenders in the current study suggested this was not always true of the treatment environment. Some offenders mentioned that is was difficult to engage when others were disruptive in the class. There was also a sense for some that if they were to show they were engaging too much they would be set apart by their peers for ridicule. Hence it was often easier to portray they were
not as interested in the treatment process as they actually were. Such factors in the treatment environment could undermine any motivational effects of the PACI-O. Therefore, future studies should perhaps look to randomising ETS groups rather than individuals. Through this it could be assessed whether the PACI-O could motivate the group as a whole and as a result improve the group dynamic which could lead to increased treatment benefits compared to offender groups attending treatment alone. The PACI-O could also be developed as a pre-treatment group intervention. This would lead to an even more time-efficient PACI-O.

Investigations are also required to explore what are the characteristics of offenders who hold high adaptive motivation or LH/P. A structure similar to the LH/P has previously been witnessed in a treatment setting. Schroer et al. (2001) found that alcoholics with a good prognosis index (the presence of sociodemographic criteria that have shown to be related to good prognosis e.g. not homeless or living in a residential home for alcoholics, living with a partner; Kufner & Feuerlein, 1989) tended to form more short-term goals with concrete actions in specific situations. However, those with an unfavourable prognosis tended to have a motivational structure that on one hand was characterised by ambitious goals with high commitment, happiness and no ambivalence, but on the other hand goal attainment was viewed as less under their control. Therefore, there could be pre-existing characteristics that could distinguish between those with adaptive motivation and LH/P. However, if this is the case then it could be argued it may be quicker to use these characteristics for prediction rather than the PACI-O. The PACI-O is a relatively brief procedure (typically under an hour); however, the semi-structured interview can be time consuming if the offender has many goals they wish to discuss.

It would also be advantageous to determine the characteristics of those who engage more in treatment and benefit most from each treatment approach. Hanson et al., (2002) noted that treatment drop-outs are likely to have pre-existing characteristics that are related
to reoffending risk. These characteristics include impulsivity and unstable lifestyles (Wierzbicki & Pekarik, 1993). McDougall, Perry, Clarbour, Bowles & Worthy (2009b) found that some offenders were more likely to benefit from ETS in terms of improvement in impulsivity ratings. Preliminary investigations showed offence category, financial, educational and employment problems were significantly associated with improvements in impulsivity following ETS (impulsivity reduced as problems with finance, education and employment increased). ETS was found to be most effective in reducing impulsivity in offenders whose index offence involved minor violence, arson and criminal damage and least in offenders convicted of burglary, theft or fraud. Finding out the characteristics of those who have high adaptive motivation, engage more and have reductions in criminogenic needs following treatment may help shape rehabilitation efforts in order to pay attention to offenders needs.

During the current study, attempts were made to collect the demographic detail of ‘current sentence length’. However, a number of offenders commented that they had been given indefinite sentences for public protection (IPPs) and were unaware of when they would be released. A condition of release on IPPs is the completion of a number of courses to address offending behaviour (Kinnell, 2008). Therefore, it would be beneficial to assess the impact of these IPPs on offender motivation for treatment.

The PACI-O works with the treatment drop-out dynamic risk factor of motivation (Pelisser, 2007). Thus it could be hypothesised that the PACI-O should be most effective with those offenders who display low static risk factors and high dynamic risk factors (such as low motivation for treatment) for dropping out of treatment. Those offenders with high static risk factors for dropping out of treatment (history of violence and type of offence) may benefit more from support services as opposed to a motivation intervention. This should be empirically tested in future studies.
Finally, attempts should be made to accrue evidence for the PACI-O with objective outcome measures, such as security reports or number of adjudications. The attempts to undertake this in the current study were terminated due to incomplete data. However, such objective measures of prison behaviour could compliment outcome measures that rely on therapist rated or self-report means.

9.11 Conclusion

The current studies detailed the construction, piloting and initial investigations of a semi-structured interview procedure that shows potential as a means to explore offender treatment motivation: The Personal Aspirations and Concerns Inventory- for Offenders. Offender treatment motivation is important as a lack of it may lead to offenders dropping out of treatment and this can increase re-offending risk.

The PACI-O has been explored using the constructs of treatment engagement and short-term measures of treatment effectiveness. These were deemed useful constructs as treatment engagement is often seen as an intermediate goal before behaviour change (Ward et al., 2004). Additionally, a reduction in criminogenic needs is thought to be associated with a reduction in recidivism (Hanson & Harris, 2000).

It was concluded that, overall, the evidence suggests the PACI-O may have most use as a motivation enhancer which can give an initial assessment of the current motivational structure of the offender. The PACI-O may inform on the likelihood of an offender to engage in treatment by judging the presence or lack of any maladaptive motivation patterns. As a result of identifying any maladaptive patterns, the PACI-O can then be utilised as a base for motivational counselling and subsequent motivation enhancement interventions. The PACI-O also gives the opportunity to examine the nature of offenders’ goals and ensure that these goals are congruent with the goals of treatment. This initial assessment of goals and motivation may allow for predictions of treatment
engagement when conducted alongside other readiness measurement instruments (such as the CVTRQ).

The overarching aim of the PACI-O is to be a useful means of understanding offender motivation that clinicians can utilise to improve the effectiveness of the rehabilitation approach. The examination of offenders’ goals may demonstrate how the GLM and Risk, Need, Responsivity model (Andrews & Bonta, 2003) contribute to a holistic approach to offender well-being (McMurran et al., 2008); therefore, boosting the effectiveness of current approaches to offender rehabilitation and decreasing recidivism. Any decrease in recidivism would result in less pressure on over-worked and under-resourced offender management personnel as well as leading to a better life for the offender and their family. Most of all, it would be the general public that benefitted from the reduction in risk from ex-offenders released into the community.
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Appendices

Appendix 1 ... The Personal Concerns Inventory – Offender Adaptation (Sellen et al., 2006).

Appendix 2 ... Life Area Illustration Sheets

Appendix 3 ... Prisoner Rating Scale Sheet

Appendix 4 ... Obstacles to their current goals

Appendix 5 ... PACI-O goal conflict review sheet

Appendix 6 ... A copy of the PACI-O answer-sheets and other documents

Appendix 7 ... Information sheet (pilot study and main study)

Appendix 8 ... Consent form

Appendix 9 ... Demographic sheet

Appendix 10 ... Feedback forms from the pilot study & feedback from the PACI-O in the main study.

Appendix 11 ... Staff Treatment Engagement Questionnaire used in the studies

Appendix 12 ... Eysenck Impulsivity Scale (the version used in the 'Long Questionnaire with ETS prisoners)

Appendix 13 ... CONSORT diagrams for the three RCT outcome measures

Appendix 14 ... Prisoner Treatment Engagement Questionnaire

Appendix 15 ... The STEQ was initially an eight item scale that is scored categorically on a three point scale

Appendix 16 ... The final STEQ questionnaire as a 5 item categorical questionnaire

Appendix 17 ... The Group Engagement Measure (MacGowan, 1997)

Appendix 18 ... Exploration of those who had missing data and those that did not

Appendix 19 ... Mean substitution for missing values

Appendix 20 ... Purposefulness in Life Scale (McGregor and Little, 1998)

Appendix 21 ... The Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988)

Appendix 22 ... The Satisfaction With Life Scale (Diener, Emmons, Larson & Griffin, 1985)
Appendix 1 – PCI-OA
Personal Concerns

Inventory – Adapted for Offenders

W. Miles Cox
University of Wales, Bangor
United Kingdom

Eric Klinger
University of Minnesota
United States of America
Introduction

Undoubtedly, you have concerns about different areas of your life. You may also have in mind things that you would like to change in order to resolve these concerns. If these changes were to happen, it might make it easier for you to change your offending behaviour.

By ‘concerns’ we do NOT mean only problems. You might have concerns about unpleasant things that you want to ‘get rid of,’ ‘prevent,’ or ‘avoid.’ Or you might have concerns about pleasant things that you want to ‘get,’ ‘obtain,’ or ‘accomplish.’
Instructions, Part 1

Read through the Areas of Life listed below, and think carefully about each of them. Then tick the areas in which you have important concerns or things that you would like to change. For now, ONLY TICK the areas that apply.

____ Home and Household Matters (Area #1)
____ Employment and Finances (Area #2)
____ Partner, Family, and Relatives (Area #3)
____ Friends and Acquaintances (Area #4)
____ Love, Intimacy, and Sexual Matters (Area #5)
____ Self Changes (Area #6)
____ Education and Training (Area #7)
____ Health and Medical Matters (Area #8)
____ Substance Use (Area #9)
____ Spiritual Matters (Area #10)
____ Hobbies, Pastimes, and Recreation (Area #11)
____ My Offending Behaviour (Area #12)
____ Current Living Arrangements (Area #13)
____ Other Areas (not included above) (Area #14)
**Instructions, Part 2**

You have been given a sheet that corresponds to each of the Areas of Life that you ticked. These are the Areas of Life in which you have important concerns about which you might like to do something. On the following sheets, please do three things.

**First,** think carefully about each Area of Life, and jot down in the spaces provided at the left of the Answer Sheet the important concerns that come to your mind.

Notice that each Area of Life has spaces for you to list up to six concerns. In some of these Areas of Life, you might have only one concern (or no concern at all). In other Areas of Life, you might have two, three, or more concerns. Use as many of the spaces as you need to describe your different concerns.

**Second,** in the spaces at the centre of the Answer Sheet describe what you would like to happen. That is, how would you like for things to turn out?

**Third,** refer to the Rating Scale Sheet. Then choose the numbers that best describe how you feel about each of the goals and concerns that you have described. Fill in these numbers at the boxes at the right side of the Answer Sheet.
Continue Overleaf

What I would like to have happen is

Area #1: Home and Household Matters
Area #2: Describes what you want to have happen
Area #3: Choose numbers from above
Step 1. Note down your concerns:
Step 2. Describe what you want to have happen:

Concern #1
Concern #2

Participant Note:
Date:
**PCI Rating Scales**

**Importance:** How important is it to me for things to turn out the way I want? Choose a number from 0 to 10, where

\[
0 \text{ is not important at all, and } 10 \text{ is very important}
\]

**How likely:** How likely is it that things will turn out the way I want?
Choose a number from 0 to 10, where

\[
0 \text{ is not likely at all, and } 10 \text{ is very likely}
\]

**Control:** How much control do I have in causing things to turn out the way I want?
Choose a number from 0 to 10, where

\[
0 \text{ is no control at all, and } 10 \text{ is much control}
\]

**What to do:** Do I know what steps to take to make things turn out the way I want?
Choose a number from 0 to 10, where

\[
0 \text{ is not knowing at all, and } 10 \text{ is knowing exactly}
\]

**Happiness:** How much happiness would I get if things turn out the way I want?
Choose a number from 0 to 10, where

\[
0 \text{ is no happiness at all, and } 10 \text{ is great happiness}
\]

**Unhappiness:** Sometimes we feel unhappy, even if things turn out the way we want. How unhappy would I feel if things turn out the way I want?
Choose a number from 0 to 10, where

\[
0 \text{ is no unhappiness at all, and } 10 \text{ is great unhappiness}
\]

**Commitment:** How committed do I feel to make things turn out the way I want? Choose a number from 0 to 10, where

\[
0 \text{ is no commitment at all, and } 10 \text{ is strong commitment}
\]

**When will it happen?** How long will it take for things to turn out the way I want?
Choose a number from 0 to 10, where

\[
0 \text{ is very short (e.g., days), and } 10 \text{ is very long (e.g., years or never)}
\]

**Will the offending behaviour you mentioned at (a, b, c, d, etc.) help (discuss each named behaviour separately)?** Will my offending behaviour help things to turn out the way I want? Choose a number from 0 to 10, where

\[
0 \text{ is not helpful at all, and } 10 \text{ is very helpful}
\]

(cont’d/…)

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PCI Rating Scales

Will the offending behaviour you mentioned at (a, b, c, d, etc.) interfere (discuss each named behaviour separately)? Will my offending behaviour interfere with things turning out the way I want? Choose a number from 0 to 10, where

0 is not interfere at all, and 10 is interfere very much

Will prison/probation/hospital help? Will the experience of being in prison/probation/hospital help things to turn out the way I want? Choose a number from 0 to 10, where

0 is not helpful at all, and 10 is very helpful

Will prison/probation/hospital interfere? Will prison/probation/hospital interfere with things turning out the way I want? Choose a number from 0 to 10, where

0 is not interfere at all, and 10 is interfere very much
Appendix 2

Past, Current and Future Living Arrangements

Home outside! Prison Life!

Home & Household Issues
Close Personal Relationships

Friends, Family, Partner, Love & Intimacy
Physical or Mental Health Issues

My physical well being!
Alcohol and drugs!
My mental health worries!

Health, Medical Matters & Substance Abuse
Recreation

Sports! Keeping Fit!
Pastimes!
Spiritual matters!

Hobbies, Pastimes & Spiritual Matters
Self- Changes and Personal Improvement

Changes to Yourself, Re-offending, Anger & Violence
Employment, Training and Financial Situation

Current and future job!
Current and future education!
Money!

Jobs, Training, Money & Education
<table>
<thead>
<tr>
<th>Activity</th>
<th>0</th>
<th>5</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not important</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likely</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Complete Control</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Don’t Know What To Do</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Maximum Happiness</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Maximum Unhappiness</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Fully Committed</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Prison Helps</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Offending Will Help</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Obstacles Impossible to Overcome</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Goal Compliments</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>
Appendix 4 - Obstacles

Do you feel there are any obstacles or barriers to overcome before you can achieve this goal? → N/Y: | ___ |

→ Easy/Hard: | ___ |

Will achieving this goal make it difficult or conflict with you achieving any other life goals? → Con/comp | ___ |
Appendix 5 - Goal review

**Review sheet**

Ok, this is now the final part of the interview. Let’s look at your current concerns and goals. So you said........

Does each goal compliment or conflict with your other life goals? Let’s now review each goal you have stated and you can tell me how much achieving each goal would affect your other goals.

*Goal 1...*
*Goal 2...*
*Goal 3...*
*Goal 4...*
*Goal 5...*
*Goal 6...*
*Goal 7...*
Appendix 6
Can you think of any obstacles in the way of you achieving this goal?  

Offending Activity:  

Can you think about and list any ways in which re-offending in the future may either interfere or help you with achieving this goal?  

Prison Activity:  

Can you think about and list any ways in which re-offending in prison may either interfere or help you with achieving this goal?  

Yes/No?  

When it will happen:  

Commitment:  

Happiness:  

What to do:  

Control:  

How Likely?  

Importance:  

What you would like to have happen is:  

Concern or aspiration #1:  

Area #1: Past, Current and Future Living Arrangements. When you think of this area, what concerns or aspirations come to mind?  

Participant #:  

Date:  

---
Can you think of any obstacles in the way of you achieving this goal?

Offending Affected:

Can you think about and list any ways in which re-offending in the future may either interfere or help you with achieving this goal?

Prison Affected:

Can you think about and list any ways in which being here in prison may either interfere or help you with achieving this goal?

Achieve in prison: Yes/No?

When it will happen: Sun/Israeli/Line?

Comment:

Happiness:

What to do:

Control:

How likely:

Importance:

What you would like to have happen is: . . .

Concern or aspiration #1

Area #2: Close Personal Relationships

Participant No.: Date: .
Can you think of any obstacles in the way of you achieving this goal?

Offending Affects:

Can you think about and list any ways in which offending in the future may either interfere or help you with achieving this goal?

Prison Affects:

Can you think about and list any ways in which being here in prison may either interfere or help you with achieving this goal?

Yes/No.

Achieve in prison: When it will happen. 

Commitment:

Happiness:

What to do:

Confront:

How likely:

Importance:

What you would like to happen is:

Concern or aspiration #1: 

Area #: Physical or Mental Health Issues

Patient No.:

Date:
I. Can you think of any obstacles in the way of you achieving this goal?

Offending: 

II. Can you think about and list any ways in which re-offending in the future may either interfere or help you with achieving this goal?

Prison Affairs: 

III. Can you think about and list any ways in which being here in prison may either interfere or help you with achieving this goal?

Adhere in prison? Yes/No?

When it will happen? Sin/Inter/Lim? 

Community: 

Happiness: 

What to do: 

Control: 

How likely: 

Importance: 

What you would like to have happen is: 

Concern or aspiration #1 

Area #4: Recreation 

Date: 

Participant No: 
Can you think of any obstacles in the way of you achieving this goal?

Offending Affects:

Can you think about and list any ways in which re-offending in the future may either interfere or help you with achieving this goal?

Prison Affects:

Can you think about and list any ways in which being here in prison may either interfere or help you with achieving this goal?

Yes/No?

What is/will happen: Sit/Intent/Limit?

Concern or aspiration #1

Area #5: Self-Change and Personal Improvement

Participant No.: Date:
Can you think of any obstacles in the way of you achieving this goal?

Offending Affiliate:

Can you think about and list any ways in which re-offending in the future may either interfere or help you with achieving this goal?

Prison Affiliate:

Can you think about and list any ways in which being here in prison may either interfere or help you with achieving this goal?

Yes/No?

Achieve in prison? When it will happen: Shin/Initiation?

Concern or aspiration #1

Area #6: Employment, Training and Financial Situation

Participant No:

Date:
Can you think of any obstacles in the way of you achieving this goal?

Offending Affect:

Can you think about and list any ways in which re-offending in the future may either interfere or help you with achieving this goal?

Prison Affect:

Can you think about and list any ways in which being here in prison may either interfere or help you with achieving this goal?

Achieve in prison

When it will happen: Stay/Inter/Tra/Lim?

Commitment

Happiness

What to do:

Control

How likely?

Importance

What you would like to have happen is:

... Area #7: Other/Over spill

Participant #:

Date:
Goal 7

Goal 6

Goal 5

Goal 4

Goal 3

Goal 2

Goal 1

Review sheet

Participant Name: __________________________  Date: ____________

Compliments my other life goals

How much does achieving each goal affect your other goals? 0 means this goal barely conflicts with my other goals and 10 means this goal does each goal complement or conflict with your other life goals? Let's review each goal you have stated and you can tell me on a scale of 0-10 how much achieving each goal would affect your other goals. So you said: __________________________
Personal Concerns and Aspirations Inventory - for Offenders
Introduction

Undoubtedly, you have concerns and goals you would like to achieve in different areas of your life. You might have concerns about unpleasant things that you want to 'get rid of,' 'prevent,' or 'avoid.' Or you may have aspirations about pleasant things that you want to 'get,' 'obtain,' or 'accomplish.'

You may also have in mind things that you would like to change in order to resolve these concerns or achieve these goals.

I will read through a number of Areas of Life in which you may have important concerns or things that you would like to change or achieve. I need you to think carefully about each of the areas. In turn, I will pass you a sheet which will help highlight some of the possible topics of each area.

Next I will need you to tell me any concerns or aspirations you may have regarding that aspect of your life.

Each Area of Life has spaces for you to list a number of issues. In some of these Areas of Life, you might have only one issue (or no issues at all). In other Areas of Life, you might have two, three, or more issues.

Next I then need you to describe what you would like to happen. That is, how would you like for things to turn out?

Finally I will ask you to choose the numbers that best describe how you feel about each of the goals and concerns that you have described. For example I will ask you to rate on a scale of 0 to 10 how important it is for things to turn out the way you wish.

I will be making a note of what you say on the Answer Sheet as we go along. Once you have told me of a concern or aspiration and what you would like as the outcome, we will stop briefly while I read to you what I have written. I will ask if what I have written is an accurate representation of what you feel. You will have the opportunity to correct, change or add to anything you have said.

Please stop me at anytime if you want to ask questions or would like to stop for a break. Do you have any questions before we begin?
PACI-O Administrators Rating Scales

Quantitative

Importance: How important is it to you for things to turn out the way you want? Choose a number from 0 to 10, where

0 is not important at all, and 10 is very important

How likely: How likely is it that things will turn out the way you want?

Choose a number from 0 to 10, where

0 is not likely at all, and 10 is very likely

Control: How much control do you have in causing things to turn out the way you want? Choose a number from 0 to 10, where

0 is no control at all, and 10 is much control

What to do: Do you know what steps to take to make things turn out the way you want? Choose a number from 0 to 10, where

0 is not knowing at all, and 10 is knowing exactly

Happiness: How much happiness would you get if things turn out the way you want?

Choose a number from 0 to 10, where

0 is no happiness at all, and 10 is a great deal happiness

Commitment: How committed do you feel to making things turn out the way you want? Choose a number from 0 to 10, where

0 is not committed at all, and 10 is very committed
0 is no commitment at all, and 10 is strong commitment

When will it happen? It will happen in the short-term (i.e. something you can achieve in the foreseeable future) or it will happen in the long-term (i.e. something that you won’t be able to achieve until far into the future)

*Short-term - Intermediate - Long-term*

*Qualitative & Quantitative questions*

A/ Can you think about and list any ways in which being here in prison may either interfere or help you with regard to achieving this goal?

So overall how will the experience of being here in prison affect you being able to achieve this goal?

Choose a number from 0 to 10, where

0 is prison will (or has) completely interfere with me achieving my goal, and 10 is prison will (or has) help very much in achieving my goal.

B/ Can you think about and list any ways in which reoffending in the future may either interfere or help you with regard to achieving this goal?

So overall if you were to offend in the future how would this affect you achieving this goal?

Choose a number from 0 to 10, where

0 is future offending will completely interfere with me achieving my goal, and 10 is future offending will help very much.

C/ Do you feel there are any obstacles or barriers to overcome before you can achieve this goal?

D/ No let’s talk about how your goals compliment and conflict each other
The Personal Aspirations and Concerns Inventory

for Offenders (PACIO)
A Brief Users Guide

The PACIO is administered as a semi-structured interview on a one-to-one basis with the interviewer and client. The questions provide a foundation for the issues that can be discussed, but essentially, the concerns, aspirations and goals are idiographic to the client. The opportunity for the offender to discuss issues that are personally pertinent to them is paramount.

Tips for Administration

Before the start of the interview –

- It is helpful to familiarise yourself with the Administrators Rating Scales. These detail the wording and ordering of the rating scales. Some of the questions are reiterated on the PACIO answer sheet.

- Prepare in front of you the PACIO Instructions, Prisoner Rating Scales and Life Area Sheets

During the interview –

- To start, read the PACIO instructions to the client and clarify what is meant by ‘Concern’, ‘Aspiration’ and ‘Goal’. Then allow the client to ask questions regarding the process and check their understanding. Pass the Prisoner Rating Scales Sheet over for the client to refer to when necessary
• Work through each Life Area in turn, handing the client the corresponding Life Area Sheet as each Life Area is visited.

Example dialogue

**Interviewer** - “The first Area of Life we will discuss is your past, current and future living arrangements, this includes any home or household issues you may have. When you think of this area do any concerns or aspirations come to mind?”

**Client** – “Yeah I’m worried I’ll have nowhere to live on release”

(Interviewer writes this on the Answer Sheet in the box titled ‘concern or aspiration’. Then once the offender has had chance to voice his concerns....)

**Interviewer** – “Ok, and what would you like to have happen?”

**Client** – “I’d like to get my own flat”

(Again the interviewer makes a note of this goal, and proceeds to discuss this whilst working through the rating scales on the Answer Sheet)

**Interviewer** – “Ok so how important is it to you that things turn out the way you wish with regards to this goal? On a scale of 0-10, with 0 being not at all important and 10 being very important”

(The interviewer then works through the scales. Sometimes I change the words around a little to stop it sounding too repetitive or to help personalise the scales for the offender…..e.g. “How important is it for you to achieve this goal?”……or….. “How important is it to you to be able to achieve this goal and get your own flat” etc etc)

• The offender may have no concerns or aspirations in a particular area (in that case take back the Life Area Sheet and move on to the next) or they may have one, two, three or more. The current PACIO Answer Sheet has space
for one concern per area; however there is an ‘overspill’ area at the back which can accommodate extra concerns and aspirations. Photocopy more as and when needed.

- The question exploring how the experience of prison affects goal achievement is really an opportunity for the offender to examine good and bad ways their incarceration affects each particular goal. I tend to listen and jot down one or two points on how they believe prison may help or interfere in their goal achievement before asking them to put a numerical figure to it. The same applies to the question regarding re-offending in the future.

*Supplementary additions to the PACIO -*

- For the purpose of my current study I have added a section on ‘obstacles and barriers to goal achievement’ and ‘conflicting and complementing goals’. However if you find it useful, feel free to include these also when you use the PACIO

- After each goal or concern I ask the client if they can think of any obstacles or barriers they will need to overcome before they can realise that particular goal. I then make a note of their response on the answer sheet.

- After all the Areas of Life have been explored and all concerns and aspirations noted, I write them all down on the Review Sheet. Then together with the offender we go through them and they rate whether they feel each goal either complements or conflicts with their other life goals.

At present the PACIO is not validated. I am in the process of doing so with adult male prisoners. This will take place over the next 2 years and I will be happy to keep you updated on the progress. I hope to produce psychometrics
and other findings on the PACIO over the next couple of years. I hope you find using the PACIO straightforward and useful for your purpose. Please keep me updated on what it’s being used for and whether it has been of any assistance. If you have any further questions please feel free to email me at J.A.Campbell@uwic.ac.uk
Appendix 7

Information sheet pilot study

Motivation to Change Interview

Your Information Sheet

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

Who am I?

I am a researcher at the School of Psychology, University of Wales Institute, Cardiff (UWIC) working with Psychologists at HMP Cardiff.

What is my research?

I am looking at reasons why offenders change, or don’t change, their behaviour. I would like to understand what motivates people to engage in treatment and to stop offending.

Why am I doing this?

To design better ways of offender assessment and treatment.

Who am I inviting to take part?

I will be interviewing approximately 30 prisoners as part of a preliminary study.

Do you have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you
are still free to stop at any time, without giving a reason. This will not affect the care that you receive, or any decisions that are made about you by others.

*What will you have to do?*

You will be interviewed by myself or another researcher from the university. You will be asked a variety of questions about different areas of your life and asked about how much you would like to change things, you’ll also be asked how ready you feel to make these changes. The interview typically takes approximately one hour. However it can take a shorter or longer amount of time depending on your answers. You can have rest breaks at anytime you need. We do not expect it to upset or worry you in any way.

In addition, we will review criminal records of participants in the future to assess how motivation profiles now, influence re-offending in the future. By signing the Consent Form, you will be agreeing to us reviewing your records in the future.

*What are the possible benefits?*

People who completed an earlier study said they thought it had helped them to sort out some of their problems, by breaking down big problems into smaller, manageable goals. Although I am not offering a specific therapeutic programme the interview has helped people to think about positive things they can achieve.

*What are the possible disadvantages?*

I am not aware of any disadvantages of taking part in this interview.

*Are the results confidential?*

All the answers you give are confidential. They will be used for research purposes only and will not affect any care that you currently receive or any decisions made about you by others. However, confidentiality will not apply if you mention something that shows a significant and previously undetected risk to yourself or others.

Although names will be taken, this is only for follow-up purposes so that I can contact you again in about three months time to ask if you will repeat the interview at that time. This is so I can measure whether motivation changes over time.
What will happen to the results of this study?

Having a better understanding of people’s motivation to change will enable us to design better assessments and treatments to help offenders change their behaviour.

Who is organising and funding the research?

The research is organised by Dr Joselyn Sellen at UWIC. It is conducted by Miss Jacqui Campbell of UWIC.

Further questions?

We would be very grateful if you could take part in this research. If you would like further information please do not hesitate to ask. Alternatively please speak to one of the Psychologists at HMP Cardiff.
Information sheet main study

Dear Sir,

This is an invitation for you to come for an interview with me at the below date and time. My name is J Campbell and I’m a researcher from the University of Wales Institute Cardiff.

I would like to speak with you about any concerns or goals you may have in your life.

Please take some time to read the attached information sheet to make sure you are happy with what is involved.

The interviews will take place in the resettlement area, and an officer will come and collect you on the allocated day and time.

The date for your interview is

The time for your interview is

If you will miss work due to this interview, please show this letter to your work supervisor in advance.

Kind regards

J Campbell

Researcher (University of Wales Institute Cardiff)
Your Life Goals Interview

Information about the study

Before you decide whether or not to take part in my research study it is important for you to understand why the research is being done and what it will involve.

Who am I?

I am a researcher at the School of Psychology, University of Wales Institute, Cardiff (UWIC) working with the programmes department at HMP Cardiff.

What is my research?

I am interested in how you view your current life goals and how this may relate to your motivation to complete a prison treatment programme. I would like to understand what motivates people to engage in treatment and to stop offending.

Do you have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to stop at any time, without giving a reason. This will not affect the care that you receive, or any decisions that are made about you by others.

What will you have to do?

You will be interviewed by me or another researcher from the university. You will be asked a variety of questions about different areas of your life and asked about how much you would like to change things, you’ll also be asked how ready you feel to make these changes. You will also be given a number of statements and asked to rate how
true they are for you (e.g. 'I have clear goals and a satisfying purpose in life'). The interview typically takes approximately one hour. However it can take a shorter or longer amount of time depending on your answers. You can have rest breaks at anytime you need. We do not expect it to upset or worry you in any way.

What are the possible benefits?

People who completed an earlier study said they thought it had helped them to sort out some of their problems, by breaking down big problems into smaller, manageable goals. Although I am not offering a specific therapeutic programme the interview has helped people to think about positive things they can achieve.

What are the possible disadvantages?

I am not aware of any disadvantages of taking part in this interview.

Are the results confidential?

All the answers you give are confidential. They will be used for research purposes only and will not affect any care that you currently receive or any decisions made about you by others. However, confidentiality will not apply if you mention something that shows a significant and previously undetected risk to yourself or others.

Although names will be taken, this is only for follow-up purposes as in some instances I may contact you again in about two to three months time to ask if you will repeat the
interview at that time. This is so I can measure whether goals and motivation change over time.

Information regarding your engagement with a treatment programme will also be sought from the treatment managers. For this I may access some of the assessment information you completed before and after your treatment programme (including questionnaires you may have filled in). I may read information on your prison file or treatment progress report. I may also access data from the “risk of reoffending” assessment that would have been previously carried out including your OASys assessment (if applicable). By signing the consent form you give your permission for me to access this information. I do not intend this to worry you in any way. I am interested in the results as a group rather than your individual results. Refusal to allow me access to this information will not be held against you.

In addition, we will review criminal records of participants in the future to assess how motivation profiles now, influence re-offending in the future (for this purpose I will seek access to your Police National Computer number). By signing the Consent Form, you will be agreeing to me reviewing your records in the future.

*What will happen to the results of this study?*

Having a better understanding of people’s goals and motivation to change will enable us to design better assessments and treatments to help offenders change their behaviour.

*Who is organising and funding the research?*

The research is organised by Dr Joselyn Sellen at UWIC. It is conducted by J Campbell of UWIC.
Further questions?

We would be very grateful if you could take part in this research. If you would like further information please do not hesitate to ask me.
Appendix 8

Consent Form

Motivation and Life Goal Interview

I have explained the study to the participant and given them an information sheet. He has indicated his willingness to take part.

Signature (Researcher): Date:

Name (in block capitals):

This form should be completed by the participant.

Please cross out as necessary

Have you read and understood the participant information sheet YES/NO
Have you had the opportunity to ask questions and discuss the study YES/NO
Have all the questions been answered satisfactorily YES/NO
Have you received enough information about the study YES/NO
Do you understand that you are free to withdraw from the study
   At any time YES/NO
   Without having to give a reason YES/NO
   Without affecting decisions that are made about you by others YES/NO
Do you agree to take part in the study YES/NO

Signature (Participant): Date:

Name (in block capitals):
Participant id number:

Before we start the interview I need to ask you a few questions; I'd like to remind you that anything you say to me is completely confidential:

Date of Birth: Number:

Gender: Male/Female

Nationality:

Ethnic Origin:

Marital status: Married/Live with partner/separated/divorced/single

Length of current sentence:

Time left to serve of current sentence:

Type of offence for current conviction
Appendix 10

*Feedback from the pilot study*

*Feedback*

Feedback from the prisoners was all positive. Feedback forms were used to improve the scale throughout the pilot phase.

Prisoners expressed that the scales had helped them think about their goals and how to go about planning for them.

Some prisoners reported that the questions in their original format could be quite hard to understand.

"Quite hard to answer. Hard to get your head around." (P2)

This led to changes to some of the scales, in the hope that this would eradicate missing data, misunderstandings of meaning and help prisoners think clearly about how they feel about their goals. From then on, response was very positive and all prisoners expressed that they found the questions clear and relevant and it also helped if the researcher explained what they meant as the questions were read helped a great deal too.

"Straightforward. Plus explaining as you went along made it easy to understand" (P10)

Prisoners said the experience helped them clarify thoughts
“Yeah. Made me think clearer” (P6)

“I have benefited as its made me think about things. Plan for the future and think about how different things will affect my plan.” (P10)

Feedback in terms of time were as follows: When asked how they found the length of the interview, all expressed that it was fine.

“Alright – keep it short and interesting” (P11)

Feedback in terms of changes to the scale were as follows: When asked could they think of any way the scale could be improved...

“Ask more about prison life.” (P5)

..............As a result of this the ‘current living situation’ was made more explicit within the ‘living’ life area. Both in terms of written and verbal expression.

“More questions about reoffending. Like do you feel like you are going to reoffend. The consequences of reoffending. Why do you reoffend?” (P13)

As a result of this feedback, ‘issues of re-offending were made more explicit within the ‘self-changes and personal improvement’ life area. Additionally it was decided to add the questions “list the ways in which prison/offending can affect your goals”. The intention being that it would give offenders the opportunity to examine the consequences of re-offending on their goals.
Feedback from the main study – RCT feasibility study

* The interview was realistic. It was genuinely what was on my mind and I had the chance to talk about what I want to do.

* The questions were easy to answer and straightforward

*Some of the questions are awkward as I have a life in prison and a life outside and they are totally different. I mean you could ask me questions about either prison or on the out and I could tell you. But with those questions I was trying to combine my lives to answer, that's why a lot of them are half-way

* It was all fine

* all ok

* It was very appropriate. It was not intrusive at all. I volunteered all of the information so that was cool.

*All ok

* It was fine

* areas were all ok

* it was all ok, very positive.

*IT WAS OK

* Yeah it was great. I thought it would be different, people trying to get in your head and stuff, but it was great.
Appendix 11 - The Staff Treatment Engagement Questionnaire

'Treatment Engagement Questionnaire'

Please circle the appropriate figure that most accurately conveys your assessment of the prisoner. Each prisoner has different abilities therefore, please answer in terms of the degree to which they did the below to the best of their ability.

E.G for question 1 if the participant failed to concentrate at all score him between 0 and 3 (with 0 being he showed absolutely no degree of concentration). If he fully concentrated score him between 8 and 11 (with 11 being he displayed the maximum amount of concentration).

1 - Did the participant concentrate in class?

[0 1 2 3] [4 5 6 7] [8 9 10 11]
He did not concentrate He somewhat concentrated He completely concentrated

2 - Did the participant understand the value of the treatment learning points?

[0 1 2 3] [4 5 6 7] [8 9 10 11]
He did not understand He somewhat understood He completely understood

3 - Did the Participant demonstrate they could apply lesson material to real life situations?

[0 1 2 3] [4 5 6 7] [8 9 10 11]
He did not demonstrate this at all He somewhat demonstrated this He completely demonstrated this
4 – Did the participant complete his assignments to a satisfactory degree?

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5 – Did the participant behave appropriately in class?

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<tbody>
<tr>
<td>He did not behave appropriately</td>
<td>He somewhat behaved appropriately</td>
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Appendix 12 – Eysenck’s Impulsivity Scale (as part of the ‘long questionnaire’)

I often long for excitement. T F
I feel at my best after taking a couple of drinks. T F
I often buy things on impulse. T F
I often do and say things without stopping to think of the consequences. T F
I have often got into a jam because I do things without thinking. T F
I often like to get high (on booze or drugs). T F
I am a very impulsive person. T F
I often act on the spur of the moment. T F
I often enjoy breaking rules I consider to be unreasonable. T F
I mostly speak before thinking things out. T F
I often get involved in things I wish I could get out of. T F
I get carried away with new and exciting ideas. T F
I get bored very easily doing the same old things. T F
Planning things takes the fun out of life. T F
I need to use a lot of control to stay out of trouble. T F
Almost everything enjoyable is either illegal or immoral.  
I am often surprised at people’s reaction to what I say.  
I get extremely impatient if kept waiting by someone who is late.  
An evening out is more exciting if planned at the last moment.  
I get restless staying around the same place for too long.  
I save regularly.  
I usually think carefully before doing anything.
Appendix 13 – The CONSORT diagrams
The CONSORT diagram showing the flow of participants through each stage of the Randomised Controlled Trial. Outcome Measure = Adaptive Motivation

KEY:

🌟 = Prisoners consent obtained

🌟🌟 = Enhanced Thinking Skills treatment programme

Experimental Group

Allocated to experimental intervention (PACI-O) (n=60)
Assessed for eligibility for study (n=60)
Excluded -did not meet inclusion criteria (n=2)
Excluded- Refused to participate in study (n=1)

Received allocated intervention (n=55)
Did not receive allocated intervention (n=5)
(Reason: failed to turn up to intervention. Included as missing data in ITT analysis)

(n=57)

Control Group

Allocated to receive no intervention before treatment (n=60)
Assessed for eligibility for study (n=60)
Excluded -Did not meet inclusion criteria (n=0)
Excluded - Refused to participate in study (n=6)

(n=54)

Follow up

Received allocated outcome measure (PACI-O) (n=47)
Did not receive outcome measure (n=3) (Reason: Failed to turn up to interview. Transfer or release)
Did not receive outcome measure. Lost to follow up ETS drop-out (n=3)

(n=47)

Analysis

Analysed (n=46)
Excluded from analysis (n=0)

(n=46)

(n=0)

Excluded from analysis (n=1)
- no goals mentioned
The CONSORT diagram showing the flow of participants through each stage of the Randomised Controlled Trial. Outcome Measure = Treatment Engagement as measured by the treatment tutors

**KEY:**
- = Prisoners consent obtained
- = Enhanced Thinking Skills treatment programme

**Assessed for eligibility for ETS (n = 120)**

**Randomised (n = 120)**

**Experimental Group**
- Allocated to experimental intervention (PACI-O) (n = 60)
- Assessed for eligibility for study (n = 60)
- Excluded - did not meet inclusion criteria (n = 2)
- Excluded - Refused to participate in study (n = 1)
- Received allocated intervention (n = 55)
- Did not receive allocated intervention (n = 2)
  (Reason: Failed to turn up for PACI-O intervention. However, included in the analysis as part of ITT study)
- Received allocated outcome measure (TEQ) (n = 53)
- Lost to follow up ETS dropout (n = 3)
- Lost questionnaire (n = 1)
- Analysed (n = 53)
  Excluded from analysis (n = 0)

**Control Group**
- Allocated to receive no intervention before treatment (n = 60)
- Assessed for eligibility for study (n = 60)
- Excluded - Did not meet inclusion criteria (n = 0)
- Excluded - Refused to participate in study (n = 6)
- Received allocated outcome measure (TEQ) (n = 51)
- Lost to follow up ETS dropout (n = 3)
- Analysed (n = 51)
  Excluded from analysis (n = 0)
The CONSORT diagram showing the flow of participants through each stage of the Randomised Controlled Trial. Outcome Measure = Post-Treatment Impulsivity Scores

**KEY:**

🌟 = Prisoners consent obtained

🌺 = Enhanced Thinking Skills treatment programme

---

**Assessed for eligibility for ETS (n = 120)**

**Randomised (n = 120)**

**Experimental Group**

Allocated to experimental intervention (PAC1-O) (n = 60)

Assessed for eligibility for study (n = 60)

Excluded -did not meet inclusion criteria (n = 2)

Excluded - Refused to participate in study (n = 1)

Received allocated intervention (n = 55)

Did not receive allocated intervention (n = 2)

(Reason: Failed to turn up for PAC1-O intervention. However, included in the analysis as an attempt at ITT study)

**Control Group**

Allocated to receive no intervention before treatment (n = 60)

Assessed for eligibility for study (n = 60)

Excluded - Did not meet inclusion criteria (n = 0)

Excluded - Refused to participate in study (n = 6)

---

**Follow up**

Received allocated outcome measure (Post-Treatment Impulsivity) (n = 40)

Lost to follow up ETS drop-out (n = 3)

Lost questionnaire (n = 14)

This figure includes the 2 participants who failed to turn up to the intervention before ETS

Analysed (n = 40)

Excluded from analysis (n = 0)

---

**Analysis**

Analysed (n = 40)

Excluded from analysis (n = 0)
Appendix 14 Prisoner Treatment Engagement Questionnaire

I would like to ask you about how you felt ETS went. Please indicate on a scale of 0 to 11 to what degree you feel the below is true.

1 – Did you feel you concentrated in class?

[0 1 2 3] [4 5 6 7] [8 9 10 11]

1. I did not concentrate 2. I somewhat concentrated 3. I completely concentrated

2 – Did you understand the value of the treatment learning points?

[0 1 2 3] [4 5 6 7] [8 9 10 11]

1. I did not understand 2. I somewhat understood 3. I completely understood

3 – Did you demonstrate you could apply lesson material to real life situations?

[0 1 2 3] [4 5 6 7] [8 9 10 11]

1. I not demonstrated this at all 2. I somewhat demonstrated this 3. I completely demonstrated this

4 – Do you feel you completed your assignments to a satisfactory degree?

[0 1 2 3] [4 5 6 7] [8 9 10 11]

1. I did not 2. I somewhat did 3. I completely did

5 – Did you feel you behaved appropriately in class?

[0 1 2 3] [4 5 6 7] [8 9 10 11]

1. I did not behave appropriately 2. I somewhat behaved appropriately 3. I completely behaved appropriately
Appendix 15

Tutor ........................................

Treatment Engagement

I am interested in how motivated and engaged Mr. .......... (.........) was during the recent treatment programme he undertook. After the participant has completed the programme with you, please could you appraise him on the following dimensions regarding his motivation and engagement with treatment. Please circle option a, b, or c where most appropriate.

1/ How was the participant’s concentration during class?
   a/ He concentrated fully on the taught material
   b/ He somewhat concentrated on the taught material
   c/ He did not concentrate at all

2/ How well did the participant understand the value of the treatment learning points?
   a/ The participant displayed a full understanding of the value of the treatment learning points
   b/ The participant appeared to somewhat understand the value of the treatment learning points
   c/ The participant did not display an understanding of the value of the treatment learning points

3/ Was the participant able to demonstrate they could apply the lesson material to everyday life situations?
   a/ The participant was extremely adept at providing examples of how they could apply the material to everyday life situations
   b/ The participant was able to provide some examples of how they could apply the material to everyday life situations
   c/ The participant was unable to provide examples of how they could apply the material to everyday life situations

4/ Did the participant demonstrate reflective thought on the treatment sessions?
   a/ The participant demonstrated a good deal of reflective thought on the sessions
b/ The participant demonstrated some reflective thought on the sessions

c/ The participant failed to demonstrate any reflective thought on the sessions

5/ Did the participant complete his assignments to an satisfactory degree?

a/ The participant always completed his assignments to a satisfactory degree

b/ The participant sometimes completed his assignments to a satisfactory degree

c/ The participant never completed his assignments to a satisfactory degree

6/ Did the participant behave appropriately in class?

a/ The participant behaved appropriately all of the time

b/ The participant behaved appropriately some of the time

b/ The participant did not behave appropriately at all

7/ How well did the participant contribute to group tasks?

a/ The participant contributed to group tasks to a satisfactory standard most of the time

b/ The participant contributed to group tasks to a satisfactory standard some of the time

c/ The participant rarely contributed to group tasks to a satisfactory standard

8/ Did the participant interact positively with other group members?

a/ The participant interacted positively with other group members all of the time

b/ The participant interacted positively with other group members some of the time

c/ The participant did not interact positively with other group members at all

I hope my questionnaire was simple and easy to complete. Please add any comments below if you feel the scale, or any of the questions, could be improved in any way
Appendix 16

*Treatment Engagement Questionnaire* (categorical)

Please circle the appropriate figure that most accurately conveys your assessment of the prisoner. Each prisoner has different abilities therefore, please answer in terms of the degree to which they did the below to the best of their ability.

E.G for question 1 if the participant failed to concentrate at all score him between 0 and 3 (with 0 being he showed absolutely no degree of concentration). If he fully concentrated score him between 8 and 11 (with 11 being he displayed the maximum amount of concentration).

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<td>1 – Did the participant concentrate in class?</td>
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<td>He did not concentrate</td>
<td>He somewhat concentrated</td>
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<td>2 – Did the participant understand the value of the treatment learning points?</td>
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<td>He did not understand</td>
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<td>3 – Did the Participant demonstrate they could apply lesson material to real life situations?</td>
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<td>He did not demonstrate this at all</td>
<td>He somewhat demonstrated this</td>
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<td>4 – Did the participant complete his assignments to a satisfactory degree?</td>
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<td>He did not</td>
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<tr>
<td>5 – Did the participant behave appropriately in class?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>He did not behave appropriately</td>
<td>He somewhat behaved appropriately</td>
</tr>
</tbody>
</table>
Appendix 17 – The GEM
GROUPWORK ENGAGEMENT MEASURE (GEM-27)
Mark J. Macgowan, Ph.D., L.C.S.W.

This measure assesses a group member's engagement in the early and middle stages of group development (it should not be completed for the first session). The measure is to be completed by the group leader for each member. This version of the GEM scores engagement over the past few consecutive sessions.

Please rate every statement to the best of your recollection - even if you are unsure of your choice. If you are stuck in a choice between two points in the rating scale, choose the first that comes to mind - it is often the most accurate. If you find you have no evidence to rate the member on a statement, leave it blank. As a guide, subscales that are missing more than half their items should be discarded.

To score the GEM, add up each item and divide by the number of subscale items to obtain a subscale score, which should be entered into the space provided. The following items are reverse-scored: 15-17. For example, if a member is given a score of 2 on item #16, it will be considered a 4 for scoring purposes. Likewise, if a member is given a 5, it will be considered a 1 for scoring purposes.

<table>
<thead>
<tr>
<th>Leader(s) Name</th>
<th>Member Name/ID:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today's Date:</td>
<td>Session Numbers Rated:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating (circle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The member arrives at or before start time</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. The member stays until the end of sessions or leaves only for important reasons</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. The member does not hurry to leave at the end of sessions</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

**Attending Score (sum total divided by # of items completed):**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating (circle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. The member contributes his/her share of talk time (not too much, not too little)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5. The member seems to follow and understand what others are saying</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6. The member responds thoughtfully to what all others are saying (not just one or two)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7. The member verbally interacts with members on topics related to the group's purpose</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8. The member participates in group projects/activities</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

**Contributing Score (sum total divided by # of items completed):**
Please use the following scale to rate each statement:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rarely or none of the time</td>
<td>A little of the time</td>
<td>Some of the time</td>
<td>A good part of the time</td>
<td>Most or all of the time</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating (circle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>III. Relating to worker</td>
<td></td>
</tr>
<tr>
<td>9. The member follows guidance of the worker (e.g., discusses what worker wants group to discuss, is involved in activities suggested by worker)(^1)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10. The member shows enthusiasm about contact with worker (e.g., demonstrates interest in the worker, is eager to speak with worker)(^1)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>11. The member supports work that the worker is doing with other members (e.g., by staying on topic or expanding on discussion)(^1)</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

Relating to Worker Score (sum total divided by # of items completed):

<table>
<thead>
<tr>
<th>IV. Relating with members</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. The member likes and cares for other members</td>
</tr>
<tr>
<td>13. The member helps other group members to maintain good relations with each other (e.g., by encouraging members to work out interpersonal problems, by stopping unproductive arguments among members, by cheering up members, and so forth)</td>
</tr>
<tr>
<td>14. The member helps and encourages other members</td>
</tr>
</tbody>
</table>

Relating with Members Score (sum total divided by # of items completed):

<table>
<thead>
<tr>
<th>V. Contracting</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. The member expresses continual disapproval about the meeting times(^2)</td>
</tr>
<tr>
<td>16. The member expresses continual disapproval about the number of meetings(^2)</td>
</tr>
<tr>
<td>17. The member expresses continual disapproval about what the group members are doing together(^2)</td>
</tr>
</tbody>
</table>

Contracting Score (sum total divided by # of items completed):

<table>
<thead>
<tr>
<th>VI. Working on own problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. The member partializes problems and works on their parts</td>
</tr>
<tr>
<td>19. The member makes an effort to achieve his/her particular goals</td>
</tr>
<tr>
<td>20. The member works on solutions to specific problems</td>
</tr>
<tr>
<td>21. The member tries to understand the things s/he does</td>
</tr>
<tr>
<td>22. The member reveals feelings that help in understanding problems</td>
</tr>
</tbody>
</table>

Working on Own Problems Score (sum total divided by # of items completed):

---

\(^1\) Members might sometimes challenge the guidance of the worker. Thoughtful, constructive challenges are O.K.

\(^2\) This statement refers to expressions of disapproval long after the issue has been resolved by other members.
Please use the following scale to rate each statement:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating (circle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VII. Working with others' problems</td>
<td></td>
</tr>
<tr>
<td>23. The member talks with (encourages) others in ways that help them focus on their problems³</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>24. The member talks with (encourages) others in ways that help them partialize or specify their problems³</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>25. The member talks with (encourages) others in ways that help them do constructive work on solving their problems³</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>26. The member challenges others constructively in their efforts to sort out their problems³</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>27. The member helps others achieve the group's purpose³</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

*Working with Others' Problems Score (sum total divided by # of items completed):*

*TOTAL ENGAGEMENT SCORE (OUT OF # ITEMS COMPLETED):*

³ To score high on this statement, the member's offer of help need not be received. The member is not to be held accountable for the behavior of other members.
Missing Data – APPENDIX 18

I/ Analysis one – A Comparison of Adaptive Motivation Following the ETS Treatment Programme

Missing Data Considerations

The initial plan was to conduct both an ‘Intention To Treat’ (ITT) and Per-Protocol (PP) analysis. However, there was some missing data from the outcome measure of adaptive motivation following treatment. The reason for the missing data was coded either as ‘the participant dropped out of the ETS treatment programme before completion’, ‘no goals were stated’ or ‘the participant was lost to follow-up’. If the participant dropped out of treatment, they were often lost to follow up also (For example, they were in the segregation unit or identified as a security risk).

Of all those randomised (111), 16.3% of participants had missing data on the outcome measure of Adaptive Motivation. It was deemed important to check for differences in the spread of missing data between the experimental and control groups to ensure that the presence of missing outcome data would not threaten the integrity of the RCT. The breakdown of missing data is displayed in table 1.

Table 1. The spread of missing data between experimental and control conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Total Number of Participants Missing</th>
<th>Treatment Drop-out</th>
<th>No Goals Stated</th>
<th>Lost to Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>11</td>
<td>3</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Control</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Data were too few for reliable statistical analysis; however, there did not appear to be differences between the groups with regard to treatment drop-outs. Nevertheless, there appeared to be considerably more participants who were lost to follow-up in the experimental condition.

It was also deemed important to examine the spread of missing data between the two prison locations. The dispersion is shown below in table 2.
Table 2. The spread of missing data between locations

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Number of Participants Missing</th>
<th>Treatment Drop-out</th>
<th>No Goals Stated</th>
<th>Lost to Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Prison Population</td>
<td>16</td>
<td>6</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Sex Offending Population</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

At face value there appears to be considerably more missing data with the sample of general prison population prisoners. This is mainly due to treatment drop-outs and loss of participants due to release or transfer before the study could take place.

Next, a comparison between those who did have Adaptive Motivation scores and those whose scores were missing was conducted. Scores on the other two outcome measures (Treatment Engagement and Post-Treatment Impulsivity scores) and several demographic factors were examined.

The valid number of participants in each group, the mean and the standard deviation are described in table 3. Frequencies on other demographic variables are presented in table 4 and 5 below.
<table>
<thead>
<tr>
<th>Data Set</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convictions over 18</td>
<td>77</td>
<td>3.23</td>
<td>6.21</td>
</tr>
<tr>
<td>Convictions under 18</td>
<td>77</td>
<td>21.58</td>
<td>10.61</td>
</tr>
<tr>
<td>OGRS score*</td>
<td>77</td>
<td>41.88</td>
<td>34.96</td>
</tr>
<tr>
<td>Treatment Engagement</td>
<td>93</td>
<td>35.97</td>
<td>11.31</td>
</tr>
<tr>
<td>Impulsivity before treatment</td>
<td>82</td>
<td>10.00</td>
<td>5.42</td>
</tr>
<tr>
<td>Impulsivity after treatment</td>
<td>73</td>
<td>6.86</td>
<td>5.12</td>
</tr>
<tr>
<td>Age</td>
<td>10</td>
<td>31.90</td>
<td>8.74</td>
</tr>
<tr>
<td>Convictions over 18</td>
<td>6</td>
<td>8.16</td>
<td>11.82</td>
</tr>
<tr>
<td>Convictions under 18</td>
<td>6</td>
<td>3.66</td>
<td>3.07</td>
</tr>
<tr>
<td>Age at 1st conviction</td>
<td>5</td>
<td>16.00</td>
<td>2.82</td>
</tr>
<tr>
<td>OGRS score</td>
<td>6</td>
<td>54.00</td>
<td>29.35</td>
</tr>
<tr>
<td>Treatment Engagement</td>
<td>11</td>
<td>36.18</td>
<td>6.72</td>
</tr>
<tr>
<td>Impulsivity before treatment</td>
<td>10</td>
<td>10.85</td>
<td>7.13</td>
</tr>
<tr>
<td>Impulsivity after treatment</td>
<td>7</td>
<td>5.42</td>
<td>3.99</td>
</tr>
</tbody>
</table>

* Table 3. Comparison on other measures of those with and without missing data on Adaptive Motivation.
The sample sizes were too disparate for reliable statistical analysis. However, at face value, some differences between groups exist. Nevertheless, it was decided that the numbers were too small to seriously threaten the validity of the trial. The reasons for missing data were varied; therefore a thorough analysis and explanation may be difficult.

Several methods of dealing with missing data were explored. Mean substitution was deemed unsuitable due to its effects of suppressing the true value of the standard deviation and standard error (Field, 2005). Baseline Observation Carried forward (BOCF) was not deemed suitable due to the fact it can often give rise to either liberal or conservative estimates (depending on the situation) and it can also violate the ITT principle (Kenwood & Molenberghs, 2009). A more detailed missing value analysis was considered but not conducted due to the technical nature of such routines and the variety of reasons for missing data, plus the limited time-scale of the proposed research.

However, repetition of the analysis using an advanced technique in future research is
recommended. A multiple imputation technique or bayesian analysis should be employed and the results compared to the findings of the current study. However, technical knowledge and understanding of the different types of missing data present (for example, Missing Completely At Random (MCAR), Missing At Random and potentially Not Missing At Random) and which technique to employ and where is required.

Following the above descriptive, exploratory investigation of the distribution of missing values, it was believed no fundamental differences between groups existed, it was deemed acceptable to complete the analysis only on participants who had available scores on the outcome measure.

Although it was assumed that the integrity of the RCT had not been compromised due to the missing data and subsequent analysis technique, it is a point for discussion as to whether the resulting analysis really is an ‘intention to treat’ design.

The listwise deletion of 18 participants due to missing data will result in loss of statistical power, but not a biased trial.

2/ Analysis two – A Comparison of Treatment Engagement as Measured by the Treatment Tutors.

Like analysis one, the initial plan for this outcome measure was to conduct both an ITT and PP analysis. However, there was some missing data from the outcome measure of Treatment Engagement as measured by the treatment tutors. The reason for the missing data was coded either as ‘lost questionnaire’ or ‘the participant dropped out of the ETS treatment programme before completion’. If the participant dropped out of treatment then the tutor could not accurately gauge and rate the participant’s treatment engagement.

Of all those randomised (111), 6.3% of participants had missing data. The breakdown of missing data between the experimental and control groups is displayed in table 6.

Table 6. The spread of missing data between experimental and control conditions
Data were too few for reliable statistical analysis; however, there did not appear to be differences between the groups with regard to the missing data.

It was also deemed important to examine the spread of missing data between the two prison locations. The dispersion is shown below in table 7.

*Table 7. The spread of missing data between locations*

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Number of Participants Missing</th>
<th>Head Office Missing</th>
<th>Treatment Drop-out</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Prison Population</td>
<td>7</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Sex Offending Population</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

At face value there appears to be considerably more missing data with the sample of general prison population prisoners. This is mainly due to treatment drop-outs. Next, a comparison between those who did have a Treatment Engagement score and those whose scores were missing was conducted. Scores on the other two outcome measures (Adaptive Motivation and Post-Treatment Impulsivity scores) and several demographic factors were examined.

The valid number of participants in each group, the mean and the standard deviation are described in table 8. Comparisons of other demographic factors are displayed in table 9 and 10.
<table>
<thead>
<tr>
<th>Those With Present Data</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Those With Missing Data</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>93</td>
<td>34.33</td>
<td>10.20</td>
<td>Age</td>
<td>4</td>
<td>28.25</td>
<td>6.23</td>
</tr>
<tr>
<td>Convictions over 18</td>
<td>80</td>
<td>9.98</td>
<td>10.79</td>
<td>Convictions over 18</td>
<td>3</td>
<td>14.00</td>
<td>15.71</td>
</tr>
<tr>
<td>Convictions under 18</td>
<td>80</td>
<td>3.16</td>
<td>6.10</td>
<td>Convictions under 18</td>
<td>3</td>
<td>6</td>
<td>2.64</td>
</tr>
<tr>
<td>Age at 1st conviction</td>
<td>81</td>
<td>21.49</td>
<td>10.50</td>
<td>Age at 1st conviction</td>
<td>3</td>
<td>14.66</td>
<td>0.57</td>
</tr>
<tr>
<td>OGRS score</td>
<td>80</td>
<td>42.12</td>
<td>34.82</td>
<td>OGRS score</td>
<td>3</td>
<td>59.66</td>
<td>25.81</td>
</tr>
<tr>
<td>Adaptive Motivation following treatment</td>
<td>93</td>
<td>58.86</td>
<td>7.53</td>
<td>Adaptive Motivation following treatment</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Impulsivity before treatment</td>
<td>92</td>
<td>10.42</td>
<td>6.04</td>
<td>Impulsivity before treatment</td>
<td>1</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Impulsivity after treatment</td>
<td>79</td>
<td>6.79</td>
<td>5.04</td>
<td>Impulsivity after treatment</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 8. Comparison on other measures of those with and without missing data on Treatment Engagement
The sample sizes were too disparate for reliable statistical analysis. However, it appears the participants with missing data (which was mainly due to treatment drop-out) are younger, have more convictions, had a first conviction at a lower age, were more likely to have a violent index offence, had a higher risk assessment (OGRS) score and higher impulsivity levels before starting treatment than those with present scores. Caution must be warranted due to the small numbers in the missing sample. However, this may
indicate important fundamental differences between treatment completers and treatment drop-outs. It also suggests that the two samples (treatment completers with present data and treatment drop-outs with missing data on this outcome measure) may be from different populations. Therefore, substitution of the missing values with the group mean would be inappropriate. As the missing data were spread evenly (bar one missing questionnaire) between the control and experimental group, the missing data cases were excluded and complete cases only were analysed (please also see above ‘analysis one’ for further justification of the handling of missing data).

The handling of the missing data was deemed to have not biased the RCT; however, it’s implications for calling it an ITT analysis is called into question. The listwise deletion of 7 of the participants’ data will lead to loss of statistical power due to reduced sample size.

**Analysis Three – A Comparison of Post-Treatment Impulsivity Following the ETS Treatment Programme**

As with the other analyses, the initial plan was to conduct both an ITT and PP analysis. However, there was substantial missing data from the outcome measure of ‘Post-Treatment Impulsivity’. The reason for the missing data was coded either as ‘missing from head office’ or as ‘the participant dropped out of the ETS treatment programme before completion’. If the participant dropped out of treatment then the participant could not rate their impulsivity levels following treatment. Follow-up by the researcher was not always appropriate as if they dropped out of treatment they may have been deemed inappropriate for interview, or they could be in the segregation unit at the prison. Thus, the data was lost.

Of all those randomised (111), 27.9% of participants had missing data. Head office missing values are deemed MCAR. No such initial assumption can be made regarding the other 6 omissions, therefore further exploration is warranted. It was considered important to check for differences in the spread of missing data between the experimental and control groups to ensure that the presence of missing outcome data
would not threaten the integrity of the RCT. The breakdown of missing data is displayed in table 11.

Table 11. The spread of missing data between experimental and control conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Participants Missing</th>
<th>Head Office Missing</th>
<th>Treatment Drop-out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>17</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Control</td>
<td>14</td>
<td>11</td>
<td>3</td>
</tr>
</tbody>
</table>

The missing data, and the reasons for omissions, appeared to be reasonably evenly spread between both the experimental and control conditions. The data were too few for reliable statistical analysis. Therefore, assumptions were taken at face value that the presence of missing data within the groups would not skew the data. It was also deemed important to examine the spread of missing data between the two prison locations. The dispersion is shown below in table 12.

Table 12. The spread of missing data between locations

<table>
<thead>
<tr>
<th>Location</th>
<th>Participants Missing</th>
<th>Head Office Missing</th>
<th>Treatment Drop-out</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Prison Population</td>
<td>20</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Sex Offenders</td>
<td>11</td>
<td>11</td>
<td>0</td>
</tr>
</tbody>
</table>

Considering the disparate sample sizes, the overall number of missing data appears to be evenly spread between the two locations, at face value. Although the numbers are too few for reliable statistical analysis, there appears to be considerably more ETS treatment drop-outs in the general prison population compared to the sex offending population. This warrants discussion at a later date.
Next, a comparison between those who did have Post-Treatment Impulsivity scores and those whose scores were missing was conducted. Scores on the other two outcome measures (Treatment Engagement and adaptive motivation) and several demographic factors were examined.

The valid number of participants in each group, the mean and the standard deviation are described in table 13. Frequencies on other demographic variables are presented in table 14 and 15 below.
<table>
<thead>
<tr>
<th>Present Data</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Missing Data</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>74</td>
<td>34.97</td>
<td>10.26</td>
<td>Age</td>
<td>23</td>
<td>31.21</td>
<td>9.29</td>
</tr>
<tr>
<td>Convictions over 18</td>
<td>63</td>
<td>10.52</td>
<td>10.74</td>
<td>Convictions over 18</td>
<td>20</td>
<td>8.90</td>
<td>11.57</td>
</tr>
<tr>
<td>Convictions under 18</td>
<td>63</td>
<td>3.55</td>
<td>6.68</td>
<td>Convictions under 18</td>
<td>20</td>
<td>2.35</td>
<td>3.19</td>
</tr>
<tr>
<td>Age at 1st conviction</td>
<td>64</td>
<td>21.26</td>
<td>9.36</td>
<td>Age at 1st conviction</td>
<td>20</td>
<td>21.47</td>
<td>13.76</td>
</tr>
<tr>
<td>GRS score treatment engagement</td>
<td>62</td>
<td>42.29</td>
<td>35.69</td>
<td>GRS score treatment engagement</td>
<td>21</td>
<td>44.14</td>
<td>31.84</td>
</tr>
<tr>
<td>24</td>
<td>38.00</td>
<td>11.16</td>
<td>Adaptive Motivation following treatment</td>
<td>20</td>
<td>57.55</td>
<td>5.88</td>
<td></td>
</tr>
<tr>
<td>Adaptive Motivation following treatment</td>
<td>73</td>
<td>57.95</td>
<td>6.64</td>
<td>Adaptive Motivation following treatment</td>
<td>20</td>
<td>57.55</td>
<td>5.88</td>
</tr>
<tr>
<td>Impulsivity before treatment</td>
<td>79</td>
<td>10.07</td>
<td>5.64</td>
<td>Impulsivity before treatment</td>
<td>13</td>
<td>10.19</td>
<td>5.51</td>
</tr>
</tbody>
</table>
Despite the disparate sample sizes, a Mann-Whitney U test was conducted on the data. Non-Parametric tests can be useful with samples of uneven size (Kikvidz, & Moya-Laraño, 2008). There were no statistical differences between participants with or without missing data with regards to age, number of convictions over 18, number of convictions under 18, age at first conviction, risk profile (ORGS score), perceived Treatment Engagement by the treatment tutors, Adaptive Motivation following treatment and levels of impulsivity prior to treatment (all p>0.05).
Therefore, it was cautiously concluded that the missing data did not compromise the integrity of the RCT. Several methods of dealing with missing data were explored (please see analysis one for extra details on considerations of missing data). However, it was decided that a PP analysis only on participants who had available scores on the outcome measure was most appropriate. Although it was assumed that the integrity of the RCT had not been compromised due to the missing data and subsequent analysis technique, it is a point for discussion as to whether the resulting analysis really is an ‘intention to treat’ design. It is taken that the listwise deletion of 31 participants due to missing data will result in loss of statistical power, but not a biased trial.
Appendix 19 –

**Mean Substitution for missing values, Testing the robustness of the reported results.**

An Intention to Treat Analysis was attempted on all outcome measures. However due to the prison situation, if they deviated from protocol at all it was often the case that follow-up data was also lost. Deviations from protocol were due to release or transfer, events transpiring so that time to visit the prisoners elapsed before the ETS programme and failure to contact them following treatment (this happened with 2 participants in the experimental condition) or dropping out of ETS (it was not always advisable to interview such prisoners, especially if they had been excluded on behaviour or attitude). Therefore, the analyses are by and large per-protocol analysis.

The only exception is the TEQ study which included the TEQ data from the two participants who deviated from protocol in the experimental group (the 2 that failed to show for the PACI-O intervention). The analyses in the thesis reports results with these included. The analysis was re-run excluding those scores to make it a purely per-protocol analysis of TEQ and it was found that results did not differ (all p values for sample as a whole, and split by population >0.05).

Analysis regarding the treatment of drop-out data was also conducted. All analysis was re-run with mean substitution for the missing values.

**Substitution of missing values with the series mean for an ITT analysis**

**Adaptive Motivation**

18 missing values were substituted for the series mean to leave 111 participants

With the means substituted the experimental group still scored significantly higher for AM following treatment (t =2.12, p<0.05, 1-tailed).

As with the original analyses, this remained true for the general prison population (t=2.27, p<0.05, 1-tailed) but not for the sex offenders ( t=0.94, p<0.05, 1-tailed).
Treatment Engagement – rated by the tutors only with the STEQ

7 missing values were replaced with the mean for the ITT analysis making 11 participants. As with the original analysis, no significant differences were found between groups with the series mean substitution for missing values (z = -1.18, p > 0.05, 1-tailed). This was the same for both the general prison population (z = -1.13, p > 0.05, 1-tailed) and the sex offenders (z = -0.54, p > 0.05, 1-tailed).

Impulsivity

31 values were replaced with the series mean making 111 participants in total.

The replacement of the 31 missing values with the series mean did not change the results of the trial. The experimental group scored significantly lower on impulsivity than the control group (t = -1.92, p < 0.05, 1-tailed). Like the analysis reported in the thesis, when split by population this remained true for the sex offenders (t = -2.45, p < 0.01, 1-tailed) but not the general prison population prisoners (t = -0.83, p > 0.05, 1-tailed).

It is reassuring that the substitution of the mean does not change the outcome of the trials. This analyses is the ITT trial with missing values substituted with the series mean. However, due to the large numbers of missing data, it was felt it was more accurate to report fully only on the data that was present (as was done in the thesis). The level of variability will no doubt have been affected in this mean substitution analysis despite the extra statistical power.
Appendix 20–Purposefulness in Life Scale (McGregor and Little, 1998)

Items are rated on a 7-point scale ranging from 1 (not at all) to 7 (extremely).

1/ “In life, I have very clear goals and aims,”

2/ “My personal existence is very purposeful and meaningful,”

3/ “I have clear goals and a satisfying purpose in life,”

4/ “I regard my ability to find a meaning, purpose, or mission in life to be very great”
Appendix 21 ... The Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988)

PANAS

Directions
This scale consists of a number of words that describe different feelings and emotions. Read each item and then circle the appropriate answer next to that word. Indicate to what extent you have felt this way during the past few weeks.

Use the following scale to record your answers.

(1) = Very slightly or not at all
(2) = A little
(3) = Moderately
(4) = Quite a bit
(5) = Extremely

<table>
<thead>
<tr>
<th></th>
<th>Very slightly or not at all</th>
<th>A little</th>
<th>Moderately</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Interested</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Distressed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Excited</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Upset</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Strong</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Guilty</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Scared</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>8.</td>
<td>Hostile</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>9.</td>
<td>Enthusiastic</td>
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<td>2</td>
<td>3</td>
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<tr>
<td>10.</td>
<td>Proud</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>11.</td>
<td>Irritable</td>
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<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>12.</td>
<td>Alert</td>
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<td>2</td>
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<td>Attentive</td>
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<td>4</td>
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<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>19.</td>
<td>Active</td>
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<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20.</td>
<td>Afraid</td>
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</tbody>
</table>
Appendix 22 … The Satisfaction With Life Scale (Diener, Emmons, Larson & Griffin, 1985)

Instructions for administration – Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by stating the appropriate number for how you feel. Please be open and honest, there are no right or wrong answers.

The seven point scale is: 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = agree, 7 = strongly agree

1/ In most ways my life is close to ideal.
2/ The conditions of my life are excellent
3/ I am satisfied with my life
4/ So far I have gotten the important things I want in life
5/ If I could live my life over, I would change almost nothing