

**Offenders' Motivation to Change**

**Eleni Theodosi**

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## Summary

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In this thesis, the Personal Concerns Inventory (PCI), a semi-structured interview based upon the Theory of Current Concerns (TCC), is adapted to measure offenders' motivation to change – the Personal Concerns Inventory: Offender Adaptation (PCI:OA). A literature review of treatment non-completion showed that non-completion was associated with increased recidivism and poor motivation is one possible reason for this. Assessment of motivation for treatment is, therefore, important. The psychometric properties of the PCI:OA, a potential measure of motivation, are described. After a pilot study of the applicability of PCI:OA with 12 prisoners, 129 adult male prisoners were tested. The construct validity of the PCI:OA was found to be good, replicating the two factors found in the original PCI – adaptive motivation and maladaptive motivation. Test-retest correlations and internal consistency were poor. Concurrent validity was examined by correlating scores on the PCI:OA factors, the University of Rhode Island Change Assessment (a self-report measure of stage of change in therapy), the Treatment Motivation Questionnaire (a measure of the degree of internal and external motivation to enter treatment), and staff ratings of engagement. Only limited concurrent validity was found. The predictive validity of the PCI:OA was examined by survival analysis of factor scores against reconviction at mean 234 days post-release. The PCI:OA factors did not predict reconviction. The concerns yielded from the PCI:OA interviews are described in a qualitative study. Finally, because the PCI:OA appeared to motivate offenders to address their problems, the PCI:OA was adapted to suit sex offenders refusing treatment

(the PCI:OA (TR)). A pilot study of 18 male sex offenders showed that the treatment group were more likely to express a positive motivational shift than those who had not received the PCI:OA (TR). Overall, the PCI:OA has some potential to assess offenders' motivation to change, but further investigations of the PCI:OA's ability to predict who engages with treatment, makes gains from programmes, and changes their offending, are required.



# **Preface**

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# Chapter 1

## Introduction.

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### *What is motivation to change?*

Historically, theories of motivation for behaviour have fallen into two main conceptual camps: motivation as an internal quality of the organism, or motivation as a function of the organism's current context. Clearly, motivation for behaviour will be influenced by a variety of both internal and external factors. The specific type of motivation of concern in this thesis is motivation to change behaviour that is viewed by others as harmful, disadvantageous, or maladaptive. Specifically, the topic here is that of motivation to change offending behaviour.

In the most recent literature on motivation to change, the concept of 'readiness to change' has been described (Miller & Rollnick, 2002; Viets, Walker & Miller, 2002). Readiness to change is a wide concept, covering both internal and external issues. External issues include, for example, the context in which a person lives, social reinforcement for the undesired behaviour, and the means by which the person was referred for treatment. Internal issues include, for example, the person's traits, desires, and beliefs. In relation to readiness to change, motivation to change refers to the *internal* aspects within the wider concept of readiness to change (Howells & Day, 2003). However, it is not clear which concept is more useful, motivation to change or readiness to change, particularly if motivation to change is viewed as an interaction between the person and the environment. Motivation may not be all that is



required for change, but it is nonetheless one important component and the topic of this thesis.

Despite the importance of motivation and the increasing attention the field is receiving, there is still conceptual ambiguity surrounding it (Drieschner, Lammers & van der Staak, 2004). Motivation needs to be clearly defined in each piece of work that uses this construct (Cox & Klinger, 2004a), and this includes detailing what the particular motivation is towards. This latter point is often not clear, and motivation to enter treatment, for example, is used synonymously with motivation to change problem behaviour, despite the fact they can represent quite different goals. Indeed, in some papers, the definition of motivation used is not even mentioned. The lack of a consistent and clearly operationalised definition of motivation has implications for making comparisons across studies and generalising conclusions.

The topic of this thesis is offenders' motivation to change their lives for the better. The focus is on identifying personal concerns and goals in a range of life areas in which everyone desires satisfaction, for example, relationships, work, and health. It is assumed that, for most offenders, crime actually presents an obstacle to achieving and maintaining maximum satisfaction in all life areas; therefore, for an offender to change his<sup>1</sup> life for the better, he will need to cease offending. Here, rather than focussing on stopping offending, which is a negative or avoidance goal, the focus is building a satisfying life, which is a positive or approach goal. Crime is seen as one obstacle to life satisfaction.

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<sup>1</sup> This is not to say all offenders are male, but for the purpose of this thesis in which all participants are male, this will be assumed.

One way of working towards stopping offending is through engagement in treatment programmes offered in prisons, and so motivation for therapy is one way of measuring motivation to stop offending. However, treatment is not necessary for change, and some prisoners may be unwilling to engage in treatments while being committed to stopping offending. Hence, although motivation for treatment is measured in this research, its validity with regards measuring commitment to change is viewed with caution.

Here, after Carver and Scheier (1998), motivation is viewed as behaviour directed towards a goal, and for the purpose of this thesis is defined as: “the internal states of the organism that lead to the instigation, persistence, energy, and direction of behaviour towards a goal” (Klinger & Cox, 2004a, p. 4-5).

#### *Motivation as a selection criterion and treatment need*

Offender treatment has grown in popularity over the past few decades, mainly as a result of the What Works literature, which identified the type of treatments that work with offenders in particular settings from meta-analyses of treatment outcome studies (McGuire, 2002). In summary, effective treatments are structured, cognitive-behavioural programmes that target criminogenic needs and are delivered in a style that suits offenders' cognitive abilities and learning style (Andrews & Bonta, 2003).

Programmes that are accredited according to What Works Guidelines available in UK prison and probation services ensure that best practice is adhered to. However, not every offender who needs or wants treatment can be offered a place on a treatment programme (McMurrin, 2002). For

example, the Bureau of Justice Statistics (1997, as cited in Lurigio, 2000) found that, in American prisons in 1995, only 13% prisoners had received the necessary drug treatment. Limited service provision means that offenders need to be selected for programmes by fulfilling certain criteria. Selection criteria vary from treatment to treatment (Garfield, 1994), but one way in which offenders can be selected is on the basis of motivation to change (McMurrin, 2002; McMurrin et al., 1998). Such targeting of treatment ensures that resources are directed at offenders who are likely to reap maximum benefits from the treatment (Williamson, Day, Howells, Bubner & Jauncey, 2003). Garfield (1994) states that those who are more educated, intelligent, talkative and motivated, will be selected for psychotherapy treatment. However, it may be true that selecting highly motivated offenders may exclude those that are highest risk of reoffending and, potentially, the most dangerous offenders will be left untreated (Marshall, 1994).

However, there is some contention in the literature about recruitment of participants to treatment programmes, and it is prudent to highlight here that some participants are mandated to treatment without necessarily possessing the internal motivation usually required. This calls into question the utility of using levels of motivation as a treatment criterion. Although Farabee and colleagues (1998) suggest that forcing people into treatment 'wastes' the treatment places which could be given to those who actually want treatment, their review of 11 programmes describing mandatory treatment supports the use of coercion in treatment for drug-abusing offenders. These authors found that, on the whole, the likelihood of an offender starting and completing treatment was comparable, whether there was legal coercion or not. Gregoire

and Burke (2004) found that in adults with alcohol and other drug problems, legal coercion was linked to an *increased* readiness to change as measured by the Readiness to Change Questionnaire (Rollnick, Heather, Gold & Hall, 1992). Howells and Day (2003) comment that whether a participant is viewed as being in treatment voluntarily or as a result of a court order (i.e. coerced), does not inform about a participant's readiness to change. What these studies suggest is that although motivation to change may not be essential at the start of treatment, it remains a selection criterion for treatment entry. This may be due to an ethical position, in which taking people into treatment against their wishes is seen as unethical (Blackburn, 2002). There may also be a practical issue, since studies find that people who self-refer to treatment programmes have higher motivation compared to offenders mandated to treatment, with the latter group needing additional pre-treatment motivational work before they can enter treatment targeting their offending (Bowen & Gilchrist, 2004).

However, *how* motivation to change is assessed is not clear. There is no psychometrically robust test of motivation to change recommended for use with offenders. Commonly, indicators of motivation to change in offenders are taken to be: willingness to enter treatment, willingness to engage with the service, and completing treatment (McMurrin, 2004). In sex offenders, motivation to change has been assessed using a mixture of willingness to engage in treatment, self-rating of motivation and clinical information.

Examples include: assessment of cognitive distortions where denial and minimisation are indicative of a lack of motivation for change and treatment, and use of decisional matrices, where motives for change of behaviour and no change are identified (Tierney & McCabe, 2002).

These methods of assessment are problematic. First, judging motivation to change from an offender's willingness to enter treatment may be erroneous in two ways. The offender may be willing to enter treatment for gains unrelated to change, for example to obtain favourable reports. Conversely, the offender may be unwilling to enter treatment because, although motivated to change, he may have no confidence in the effectiveness of treatment on offer. Second, self-ratings of motivation have the advantage of being quick and easy, but are susceptible to faking good. Finally, clinical material (e.g. cognitive distortions, decision matrices) may be associated with motivation to change, but these are the very issues on which therapy focuses and so to use them as selection criteria for that therapy is illogical. If a person gives the 'right' answers, then he is motivated for therapy but may not need it, whereas if a person gives the 'wrong' answers, he needs therapy but is rejected as unmotivated. If offenders continue to be recruited to programmes according to levels of motivation to change, then this concept needs to be assessed with a theory-driven, psychometrically sound, user-friendly instrument.

Not only is motivation to change used as a selection criterion for treatment programmes, it is also viewed as a treatment need (McMurrin, 2002; McMurrin et al., 1998; van Beek & Mulder, 1992), and as such motivation needs to be measured in order to evaluate how therapy is progressing. Completing treatment is associated with decreased recidivism compared with untreated offenders (Cann, Falshaw, Nugent & Friendship, 2003). By contrast, offenders who start but do not complete treatment are more likely to reoffend than untreated offenders. Thus, not only is being

motivated to enter treatment important to ensure those people who receive treatment benefit from it, and are less likely to recidivate in the future, but so too is being motivated to remain in treatment. The Correctional Services Accreditation Panel, which accredits offender behaviour programmes that aim to reduce offending, stipulates motivation as one of the characteristics that needs to be considered in selection of offenders to treatment and also that motivation is considered an ongoing treatment target (Joint Prison Probation Accreditation Panel, 2003). Longshore and Teruya (2006) also cite motivation for treatment as critical to treatment engagement and changing problem behaviour. Motivational components can be included in the treatment programme (Kear-Colwell & Pollock, 1997; McMurrin, 2002), and motivational modules and techniques such as motivational interviewing are commonplace in treatment programmes (Miller & Rollnick, 1991, 2002). Joe, Simpson and Broome (1998) highlight the importance of using early retention initiatives, that is, motivational strategies, with those participants with low motivation to maintain engagement. In order to do this effectively, motivation must be monitored throughout the programme, intervening where necessary. This supports the What Works literature, in that treatment that 'works' in reducing recidivism is treatment that is responsive to offenders' needs and learning style; responsivity factors include the concept of motivation (Andrews & Bonta, 2003).

To summarise, measures of motivation to change are required to (a) assess motivation levels prior to treatment; (b) guide intervention; and (c) allow for evaluation of change. Having highlighted the need for assessment of motivation to change, a particular theory of motivation will now be described.

### *Addictions theory – can it be applied to offenders?*

Much of the motivation to change literature has its roots in theories of addictive behaviours. It is important to consider whether assessments and interventions developed from addiction theories are applicable to offenders. There are theoretical commonalities between problematic substance use and repeated offending, in that both are maintained by short-term gain over long-term costs, and that these long-term costs lead to failure to maximise one's potential in life (Sellen, McMurrin, Cox, Theodosi & Klinger, 2006). In this sense, impulsivity and inability to delay gratification underpin substance use, and at least some types of offending. In fact, longitudinal research has shown that impulsivity is a predictor of both problematic substance use and aggression in males (af Klinteberg, Andersson, Magnusson & Stattin, 1993). There has been some debate about behavioural addictions, including the potential of crime to be described as an addictive behaviour (Hodge, McMurrin & Hollin, 1997). Orford (2001), in his attempt to re-align the field of addictions comments: "It is not to 'substances' that we are at risk of becoming addicted, but rather to 'objects and activities' of which drugs are a special example" (Orford, 2001, p. 2). This suggests that theories of addictive behaviours can be applied to offending behaviour. This is not to say that theories of addiction should be applied without full testing of their validity, but that these theories create a good foundation for investigation of motivation to change in offenders (McMurrin, 2002, 2004), which is the purpose of this thesis.

### *Theory of current concerns*

One particular theoretical framework of motivation from the addictions literature is that of the Theory of Current Concerns (TCC; Klinger & Cox, 2004a), and this is the main theory underpinning this thesis. This theory explains goal choice, goal pursuit, and finally, goal termination (either due to goal achievement or goal failure), within a cognitive-motivational framework. In this theory, the process making goal-striving possible is motivation, and the goals people select and how people relate to them is known as their motivational structure (Klinger & Cox, 2004a). A current concern is a hidden, time-binding process initiated when one becomes committed to a goal, and ends when a goal pursuit is terminated. People aim “for things that will make them feel better” (Klinger & Cox, 2004a, p. 11), whether by striving for goals that increase positive affect, or decrease negative affect, or both. Klinger and Cox (2004a) also make the distinction between intrinsic and extrinsic motivation, intrinsic motivation explaining how a goal is pursued for its own enjoyment or benefit, for example eating a piece of chocolate, and extrinsic motivation explaining that a goal is pursued as a stepping stone to a further goal. Completing a college course (goal 1) to get a promotion (goal 2, the end goal) would be seen as an extrinsically motivated event according to Klinger and Cox (2004a). This is at odds with other researchers, who view an intrinsically motivated goal as one that the person chooses for himself, and an external one as a goal pursued as a result of some external event, for example, being told to clean your room by a parent (Ryan, Plant & O’Malley, 1995). The TCC is outlined in Figure 1, and explained in more detail below.



Most of the research using this theory is in the field of addictions, specifically alcohol misuse. Cox and Klinger (1988, 2004b) developed a motivational model of alcohol use which highlights the interdependency of alcohol use with expected emotional satisfaction. People choose to drink alcohol when the net expected affective change from drinking alcohol is more positive than other, incompatible options (Cox & Klinger, 1988, 2004b). The decision to drink or not to drink alcohol is subject to a decisional pathway, influenced by previous drinking experiences, current factors (such as current feelings), net benefits of drinking and other incentives the person may have (for example, to spend more time with friends, to take up a new hobby), cognitive mediators, and net expected affective change. Considering offending, this too would be influenced by previous experiences, but related to offending rather than drinking. The decision to offend would also be influenced by current factors (such as feeling unhappy or frustrated), net benefits of offending and other incentives the person may have (for example, to get a job, claim benefits, walk away from the argument), cognitive mediators (for example, antisocial attitudes, expectations about offending), and net expected affective change. The TCC builds on this model and structures it within a broader theory of human motivation, using concepts such as current concerns. It is this broader model, that of the TCC, that is explained here.

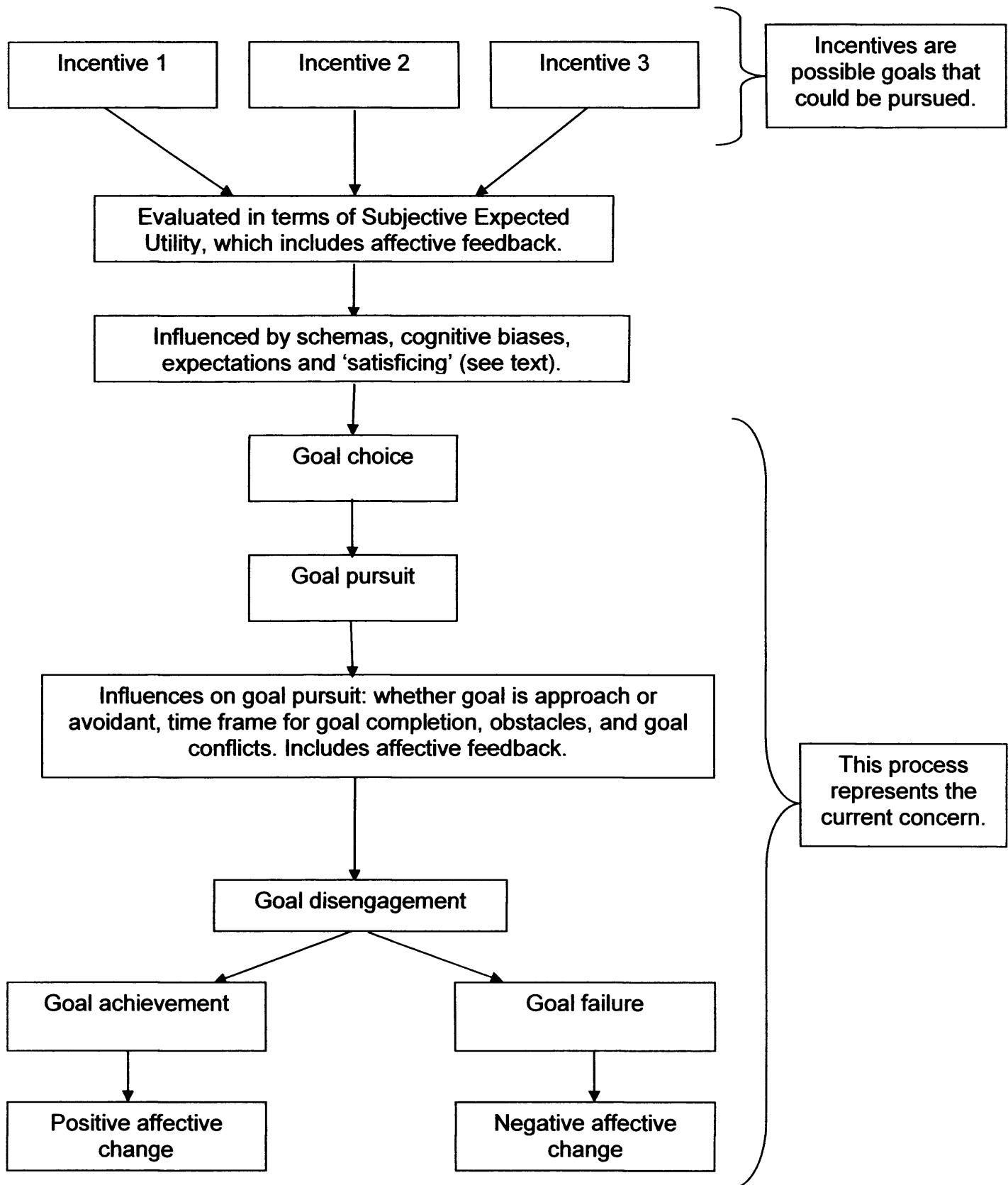


Figure 1. Outline of the TCC.

*Goal choice.* In the TCC, goal choice is dependent mainly upon two factors: the *value* placed upon each potential goal (where a potential goal is known as an incentive; anything that is expected to bring about a desirable affective change) and the *probability* of that incentive being attained. Incentives can be positive or negative, and it would be expected that one would want to achieve positive incentives which will increase positive affect, and get rid of negative incentives that will increase negative affect (Klinger & Cox, 2004a). The concept of value and probability guiding goal choice stems from economics, and is formally known as Subjective Expected Utility theory (SEU; Edwards, 1961). SEU theory states that the decision to pursue a particular activity is a trade-off between its utility (the extent to which the activity is in one's best interests), and the probability of that activity happening, or being achieved (Manktelow, 1999). Value is dependent upon potential costs of striving for that goal, as well as extrinsic motivations involved in that goal (it could be that the goal is a stepping stone to another, so although the current goal being pursued is not of great value, the ultimate goal is). In spite of the fact that probability has a substantial role in determining goal choice, Klinger and Cox (2004a) maintain that the main determinant of goal choice is in fact the anticipated emotional gain. However, deciding to pursue a goal is not that simple. Klinger and Cox (2004a) acknowledge the impact that conditioned behaviours can have on goal choice. For example, assume that someone feels unhappy because they are overweight. A conditioned response to this unhappiness may be to eat or drink alcohol, despite the fact that doing so can lead to the gain, rather than a desired loss, of weight. Further, cognitive biases, for example, under- or

overestimating emotional reactions, can also influence goal choice (Levine & Safer, 2002). Linked to this latter point, people's beliefs about what is possible in the future can influence goal choice (Wilson & Gilbert, 2005). A final influence in goal selection is that of 'satisficing' (Klinger & Cox, 2004a, p. 14), whereby an individual will form a goal that is just 'good enough', rather than aiming for the optimum goal in terms of desired affect change.

*Current concern.* Once a goal is chosen, people are said to have developed a current concern, which is a hidden, time-binding process toward attainment of a goal. Commitment represents an irrevocable process, such that the goal cannot be terminated (for any reason), without some psychological cost. The current concern is, ultimately, the representation of the goal in memory which acts to prioritise those events that will facilitate goal attainment (Klinger & Cox, 2004a). Klinger and Cox (2004a) suggest that commitment has the immediate effect of reframing obstacles from things that would deter from striving for the goal, to invigorating goal pursuit. In addition, one's mindset changes as a result of commitment, so that the focus of behaviour is to achieve the goal, and one would become sensitised to those cues associated with the goal. Indeed, memory for goal-related items is improved, and a person is more likely to think and dream about goal-related thoughts, and act upon cues that are concerned with that goal as a result of this sensitisation (Klinger & Cox, 2004a).

*Goal pursuit.* Certain factors influence pursuit of a goal: whether the goal is approach (also known as appetitive) or avoidant (also known as aversive), whether the goal can be achieved in the immediate future, whether there are any obstacles to goal achievement, and whether there is conflict

with other goals. Thus, it is easy to see how, although an individual may have many incentives, goals will only represent a few of these incentives (Klinger & Cox, 2004a).

People who have goals that are avoidant in nature are more likely to be less satisfied with their life compared to those who have approach goals (Emmons, 1999). Approach goals are those where the end product is something that a person wants to gain or achieve (for example, a job); avoidant goals are those where a person strives to avoid or get rid of something (for example, lose weight). Emmons (1999) aggregated findings from studies considering goal pursuits to develop a list of goal predictors of subjective wellbeing. Amongst those predictors related to positive subjective wellbeing were 'approach goals', and in the list of negative predictors was 'avoidant goals'. Most people are more readily able to attain approach goals and this has implications for intervention; it may be that by reframing goals from avoidant to approach a more fulfilling life can result (Klinger & Cox, 2004a).

It is suggested that motivation for goals that are achievable in the foreseeable future will be greater than for those goals that will take longer to achieve (Klinger & Cox, 2004a). Putting this into context, this has implications for offender treatment. Offenders experience more rapid gains from offending than for longer-term options; an example would be stealing, compared to getting a job. Klinger (1977) found that people think about things that are nearer to them in terms of achievement time than those that are further away, suggesting increased motivation for those things that are temporally closer. Emmons (1999) comments that long-term goals tend to be abstract as

opposed to concrete goals and extrapolating from research about abstract goals (see Emmons, 1999), people will be less motivated to pursue those goals that will take longer to achieve.

Conflicts amongst goals will also influence goal pursuit. Goals are pursued simultaneously and not in isolation, therefore the potential for conflict between two or more goals arises (Riediger & Freund, 2004). For example, there may be conflict between buying a new car and buying a house, or getting promotion, and getting a new relationship off the ground. If there is such conflict, the motivation to achieve these goals will be attenuated; people experiencing such conflict ruminate on goals, without actually doing anything to achieve these goals (Emmons, King & Sheldon, 1993; Riediger & Freund, 2004). Further to this, there is evidence to show that conflict between goals can reduce feelings of wellbeing (Emmons et al., 1993; Riediger & Freund, 2004). Riediger and Freund (2004) found, in three separate studies, that goal interference (conflict) predicted poorer wellbeing, as measured by self-report diaries, a measure of affect, life satisfaction scales, and psychological wellbeing measures.

The final influence on goal pursuit that Klinger and Cox (2004a) cite is that of concrete plans for goal attainment. If there are concrete plans in place, a goal is more likely to be attained (Emmons, 1999). To support this, Riediger, Hall and Callow (2006) suggest that imagery techniques can facilitate goal achievement. These authors believe that imagery can increase rates of recovery in injured athletes, in conjunction with physical therapy. In their study 10 injured athletes were asked about their use of imagery using a questionnaire. Indeed, Riediger et al. (2006) found that cognitive imagery

(imagining performing specific skills or plays) facilitated the learning of rehabilitation exercises received during physiotherapy sessions when the athletes' goal was to get back to fitness. Thinking about the steps required to fulfil a goal, and imagining the feelings anticipated at goal achievement, can make a goal more tangible which results in increased motivation for its achievement.

*Disengagement.* Disengagement from a goal is the final part of the TCC. When goal pursuits end in successful achievement, feelings that follow tend to be positive: happiness, satisfaction, and pride (Klinger & Cox, 2004a). However, when a goal is not successfully achieved a person will experience something called the incentive-disengagement cycle (Klinger, 1977). Upon encountering an obstacle, one becomes invigorated to achieve the goal. New tactics are employed to try and reach the goal, and if this does not lead to goal attainment, feelings of aggression may ensue, followed by feelings akin to depression. After a period of time, both feelings and activity will return to the levels they were before the goal was 'failed'. The time frame within which this cycle takes place can be incredibly short - seconds or minutes - to much longer, for example a period of years, dependent upon what the failure is: burning the dinner may not be seen in the same way as a relationship breakdown.

No matter how goal disengagement unfolds, the representation within the brain remains. It is not deleted from memory; instead, responses to any of the newly achieved, now redundant goal are inhibited; ultimately, this is a form of extinction (Klinger & Cox, 2004a).

*The role of emotion.* The role of emotion is emphasised throughout the theory. Not only does emotional feedback shape the value assigned to a potential goal (the incentive), it also serves to inform goal pursuit and is associated with disengagement from a goal, whether this is due to failure to reach the goal, or because the goal has been successfully achieved. However, not all goals that would bring about a desirable affective change (i.e. increase positive affect, decrease negative affect) are pursued. This could be because: the individual is not aware how to realise their goals; the individual thinks goal attainment could make them unhappy; the individual believes they cannot achieve the goal, and time constraints force a choice (Klinger & Cox, 2004a). Another reason may be the presence of insurmountable obstacles or barriers preventing goal pursuit, for example, inability to attend a class to achieve the goal of improving one's literacy. If feedback about goal pursuit suggests that goal achievement is not progressing favourably, resulting in unhappiness, future actions may be adjusted to improve the chance of obtaining the goal. The converse is also true; if feedback is favourable and goal pursuit is on course, it will be accompanied by feelings of happiness and satisfaction and goal pursuit will remain on the same trajectory (Klinger & Cox, 2004a).

The TCC draws on a wide range of literature including that from the fields of cognitive, biological, and abnormal psychology. Indeed, the empirical work informing the theory is robust and abundant, and spans over 30 years of research. As such, the theory can explain psychological difficulties.

*Psychological difficulties.* Common psychological difficulties can be framed in terms of motivation (Klinger & Cox, 2004a). Framing substance



misuse using the TCC, it can be seen that people misusing substances are pursuing goals (i.e. to drink) that are undesirable or self-destructive; the expected affective change is greater for drinking, than for going to the gym, for example (Cox & Klinger, 2004c), and a similar orientation would also explain offending behaviour (offending compared to getting a job).

Furthermore, people who cannot find satisfying goals are more likely to be depressed. People with phobias and anxiety disorders invest time into goals that maintain the disorder, namely avoidance of a stimulus or situation, rather than adopting goals aimed at reducing fear or anxiety (Cox & Klinger, 2004c). However, the value of the goal is subjective, and the nature of anxieties and phobias is that goals are pursued to minimise distressing feelings.

Klinger and Cox (2004a, p. 17) comment: “troublesome emotions, cognitions and actions are tied to troubled goal pursuits” (with the exception of organic disorders). Assuming that offending behaviour is a ‘troublesome action’ (in that offending is antisocial and carries legal and moral sanctions), then it appears appropriate to apply the TCC to understanding the motivational structure of offenders’ goal pursuits. Not only will this guide assessment of motivation to change, it will also direct interventions to target maladaptive goal pursuits in a constructive way. Assessing the motivational structure of offenders is likely to make the most of any motivation they may be expressing, rather than assessing whether such motivation is ‘genuine’ (McMurrin, 2004).

Considering offending within the framework of the TCC, offending is a maladaptive way in which to achieve everyday goals. For example, from a set of possible incentives that will bring about affect change (incentives are

potential goals that could be pursued), offending (goal 1) is pursued to make money (goal 2). Other incentives are not valued as highly as offending, and the possibility of achieving other incentives (for example, a job) can seem unlikely. As a result, an offender may choose to steal, and if offending is a possibility in the foreseeable future, if there are few, if any obstacles, and there exist no conflicts with other goals, the offender will be more likely to offend in order to achieve the ultimate goal of obtaining money. Informing the pursuit will be emotions, and emotional and cognitive feedback will inform the goal pursuit (to steal). If the offender successfully achieves his goal, he will feel happy at this achievement. This can reinforce offending, making it more likely that he will offend again. On the other hand, if the offender was prevented from stealing (perhaps by a security guard), the goal will have been failed. An obstacle such as the security guard can force offenders to find another way to achieve their goal (whether this is in a prosocial or antisocial manner), and if the goal is failed again, he would then, according to the TCC, experience feelings of upset, anger, and depression, before returning to baseline mood state.

### *The Personal Concerns Inventory and Systematic Motivational Counselling*

Many authors comment on the need for an assessment of motivation that will complement clinical opinion, or act as an independent assessment (Howells & Day, 2003; McMurrin et al., 1998; Williamson et al., 2003).

Measures of motivation to change such as self-report ratings and a self-reported willingness to engage in treatment currently have little evidence as to their clinical utility in assessing any kind of motivation (Walton, Blow & Booth,

2000). Motivation is a complex construct that may not be accurately operationalised by such measures (Tierney & McCabe, 2002). The Personal Concerns Inventory (PCI), developed by Cox and Klinger (2004d), fills this gap. It is an assessment of an individual's concerns and goals in life areas, with standard rating scales pertaining to the value of the goal, its importance, and so on. In addition, the PCI assumes offending to be rational and avoids stigmatisation through labelling, as the problem behaviour is viewed as both a facilitator of, and a hindrance to, goal achievement (Howells & Day, 2003; McMurrin, 2004; Nair, 2003). It is possible that, because offending can be rewarding, there may be greater ambivalence associated with changing offending, analogous to the ambivalence that may be seen in those wanting to change addictive behaviours (Miller & Rollnick, 1991, 2002). The PCI may uncover such ambivalence.

The PCI is an abridged version of the original Motivational Structure Questionnaire (MSQ; Cox & Klinger, 2004e; Klinger, Cox & Blount, 1995). The PCI has a reduced number of life areas in which respondents describe their current concerns, and fewer rating scales on which respondents evaluate their goal strivings. Otherwise, the PCI is a simplified and more user-friendly version of the MSQ. Accordingly, the psychometric properties of the MSQ may be applicable to the PCI. The PCI identifies respondents' concerns in 12 life areas: (1) Home and household matters, (2) Employment and finances, (3) Partner, family and relatives, (4) Friends and acquaintances, (5) Love, intimacy and sexual matters, (6) Self-changes, (7) Education and training, (8) Health and medical matters, (9) Substance use, (10) Spiritual matters, (11) Hobbies, pastimes and recreation, and (12) Other areas.

Using both an idiographic and a nomothetic method of assessment, the PCI has advantages over checklist measures of motivation. Idiographic information is collected by asking people to identify and describe their goals and concerns, and important information is gained about whether each goal is approach or avoidant. Quantitative information is also gathered by asking individuals to rate each of their goals on rating scales, such as importance, likelihood of attainment, and expected affective change if the goal were attained (Happiness and Unhappiness). A list of the rating scales is shown in Table 1. Each scale is rated from 0 (not important/not likely) to 10 (very important/very likely). From these, motivational scales are derived that can be used to depict each person's motivational structure.

There are, of course, problems inherent in assessing the reliability and validity of a dynamic variable such as motivational structure. The very construct that is measured changes across time. Further, Locke (1996) contends that the study of motivation is difficult because it represents a subjective internal state, something that cannot be observed like eye colour, for example. Despite this, the reliability and validity of the MSQ and PCI have been evaluated. Klinger and Cox (2004b) identified some MSQ scales that were stable across 10 months, even for participants who completed treatment within the 10 months and whose motivation was expected to be changeable. Scales that were found to be the most stable for these participants were Commitment, Joy (anticipated at goal achievement), and Substance expectancy effects (the degree to which the substance is expected to facilitate or impair goal attainment). For non-clinical samples, the most stable scales were: Commitment, Joy, and expected Chances of Success. Scales that were

Table 1.

PCI rating scales.

Scale	Description
Importance:	How important is it to me for things to turn out the way I want?
How likely:	How likely is it that things will turn out the way I want?
Control:	How much control do I have in causing things to turn out the way I want?
What to do:	Do I know what steps to take to make things turn out the way I want?
Happiness:	How much happiness would I get if things turn out the way I want?
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?
Commitment:	How committed do I feel to make things turn out the way I want?
When will it happen?	How long will it take for things to turn out the way I want?
Will alcohol/ drugs [offending] help?	Will using alcohol or drugs [offending] help things to turn out the way I want?
Will alcohol/ drugs [offending] interfere?	Will using alcohol or drugs [offending] interfere with things turning out the way I want?

found to be unstable in the clinical sample include: the number of goals, Active role (the extent to which the person is actively pursuing the goal), Unhappiness, Chances of success if no action, Time available (when one should start taking action), and Goal distance (maximum time period allocated to a particular action). Klinger and Cox (2004b) suggested that the unstable scales reflect the changes in motivational structure that the MSQ and PCI are designed to assess (for example, Unhappiness and Goal distance). The factor structure of the MSQ and PCI has been explored and both lend themselves to similar, dichotomous interpretations (Klinger & Cox, 2004b). There is considerable evidence suggesting a two factor structure of the PCI, these factors being *adaptive* and *maladaptive* motivation.

Scales loading on the adaptive motivation factor are those shown to be stable across test-retests, i.e., Commitment, Happiness and Likelihood (all with loadings above 0.45). The adaptive structure has been consistently found across numerous studies with people who abuse alcohol and university students (Cox, Pothos & Hosier, in preparation; Fadardi, 2003; Fadardi & Cox, 2002; Hosier, 2002; Hosier & Cox, 2002). It includes scales that identify the perceived importance of, achievability of, and control over goals (Cox et al., in preparation; Fadardi, 2003; Fadardi & Cox, 2002; Hosier, 2002; Hosier & Cox, 2002).

By contrast, the maladaptive motivation factor is less consistent. Cox et al (in preparation) reported that Commitment, Happiness, and Importance negatively loaded on maladaptive motivation. Unhappiness at goal success and Alcohol hindering goal achievement load positively on maladaptive motivation (Hosier, 2002; Hosier & Cox, 2002), although Control has shown

inconsistent loadings (Cox et al., in preparation; Hosier, 2002; Hosier & Cox, 2002). Overall, those respondents with higher scores on maladaptive motivation described less commitment toward their goals, less happiness when goals were achieved, and a longer time to achieve them. Comparisons between the MSQ and PCI have suggested that the adaptive motivation factor is relatively consistent (Klinger & Cox, 2004b).

The predictive validity of the PCI has also been examined. Cox et al. (2002), in a study of student drinkers, found that motivational structure played a role only for those whose drinking was a problem. The greater the problem, the more important adaptive motivation was to resolving it. The PCI and its predecessor have also been used to predict responses to alcohol treatment. The adaptive motivation factor has been found to be negatively related to quality of life at the start of treatment, but positively related to subjective wellbeing on completion (Schroer, Fuhrmann & de Jong-Meyer, 2004). In addition, Cox, Blount, Bair and Hosier (2000) report that adaptive motivation, measured by the MSQ, is a positive predictor of determination to change, as measured by the University of Rhode Island Change Assessment (URICA; McConaughy, Prochaska & Velicer, 1983).

The PCI could help gain access to the concerns and goals that individual offenders have in a variety of life areas, thus providing an opportunity to tailor rehabilitation to individual needs. This leads to one of the main advantages of the PCI - its use as a foundation for counselling. Cox, Klinger and Blount (1991; Cox & Klinger, 2004c) devised a technique named Systematic Motivational Counselling (SMC), which uses the goals identified as the framework for therapy. The aim of Systematic Motivational Counselling

(SMC; Cox & Klinger, 2004c; Cox et al., 1991), is to work with an individual's motivational structure to restructure it into a more constructive type of motivation that can help people to achieve better methods for obtaining goals and, ultimately, to lead a more fulfilling life. SMC has been used with many populations including those with personality disorder, psychosis, brain injury, affective disorders and those abusing substances (Cox & Klinger, 2004c).

The potential for SMC to be used as an individual therapy with offenders is clear (McMurrin, 2004). SMC would work with goals that the offender can choose, and would provide useful transferable life skills, for example problem solving. Rather than emphasise places or activities that should be avoided, SMC works in a more positive way, emphasising what one *can* do. This is more in line with recent developments in positive psychology with offenders. In an approach-focused relapse prevention programme, offenders engaged more positively in the treatment and were rated by the programme facilitator as more motivated to stop offending, when compared to those offenders who took part in a traditional, avoidance-based programme (Mann, Webster, Schofield & Marshall, 2004; Marshall et al., 2005). In addition, SMC would fit in with the current ethos of the prison service. SMC has aspects of Motivational Interviewing (Miller & Rollnick, 2002) which has been found to be successful with offenders (Mann, Ginsberg & Weekes, 2002).

### *Chapter outline*

The first piece of work in this thesis is a review of the predictors and effects of non-completion of offender treatments (Chapter 2). The role of



motivation for treatment is addressed directly, but so too are other issues that may affect motivation for treatment, including programme and client characteristics. This work sets the scene for the development of the PCI.

In Chapter 3, the pilot development of an offender version of the PCI with a small sample of prisoners is reported. This provides support for the use of the PCI with prisoners, although amendments to the PCI are proposed to make it more amenable for use with this new population. The resulting assessment schedule is the PCI: Offender Adaptation (PCI:OA). Chapter 4 expands upon this work, and construct validity of the PCI:OA is described as a first step to assessing validity and reliability of the PCI:OA with offenders.

Further validation of the PCI:OA is reported in Chapter 5, where correlations between the PCI:OA and two other measures purported to assess motivation are used to evaluate concurrent validity. These measures are: the University of Rhode Island Change Assessment (URICA; McConaughy et al., 1983), a self-report questionnaire seen as the gold standard in assessing motivation; and the Treatment Motivation Questionnaire (TMQ; Ryan et al., 1995), a more recent development in this field. In addition, staff ratings of participant motivation are used as a concurrent measure.

One very important property of a psychometric test is that of predictive validity. In Chapter 6 the ability of the PCI:OA to predict reconviction of the treatment and comparison groups is investigated, by conducting a survival analysis of participants who were at risk in the community for a mean of 234 days. The important point to note here is that if the PCI:OA has similar properties to the PCI with drinkers, then this could be said to support a common underlying theory. Therefore, throughout these validation chapters,

the desired outcomes are for similar results to the original PCI; the TCC treats offending as a behavioural choice in the same way as drinking can be viewed a behavioural choice.

The PCI:OA also yields a substantial amount of qualitative information that could potentially be used to inform treatment services. Such qualitative information can also assist in understanding more about the process of goal formation and pursuit. A basic thematic analysis of information generated in PCI:OA interviews with offenders is reported in Chapter 7 to complement the quantitative evaluation of the PCI:OA, and themes are reported for each of the 14 life areas.

What is apparent from previous chapters is that the PCI:OA can be a motivational tool in and of itself. As the motivational aspect of the PCI:OA is not fully realised in earlier chapters, it is in Chapter 8 that the possibility of the PCI:OA as an intervention for enhancing motivation is explored. In this chapter, a small pilot study using the PCI:OA with sex offenders convicted of a sexual offence who are refusing treatment or denying their offence, is described.

In the final chapter, the studies are discussed in context of one another, and implications and future directions for the PCI:OA and the TCC are highlighted. Limitations and strengths of each of the studies are considered, and future directions for the assessment of motivation are also covered.

## Chapter 2

### Why study motivation?<sup>1</sup>

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#### Summary

There is increasing evidence that offenders who do not complete treatment are at greater risk of recidivism than those who do complete treatment. Profiles of non-completers show them to be high risk for reoffending compared with completers, and differences in reconviction may be explained by these baseline levels. What is unclear is whether non-completion actually increases the risk of reoffending over no treatment at all. The purpose of this chapter is to examine the recidivism of non-completers compared with untreated offenders of comparable risk. Part I describes a systematic search of the literature relating to cognitive-behavioural interventions. Programme and individual characteristics that are associated with completion and non-completion of treatment programmes are detailed. Many of the factors highlighted impact upon motivation and it is obvious that these may interact to influence motivation. Part II describes a meta-analysis of 16 relevant studies describing 17 samples. The mean effect size ( $d = -0.16$ ) of differences in reoffending between untreated offenders and treatment non-completers suggests that failing to complete treatment is associated with elevated levels of reoffending, with this effect being more pronounced in community samples ( $d = -0.23$ ) than institutional samples ( $d = -0.15$ ). Methodological limitations

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<sup>1</sup> This work has been accepted for publication as McMurrin, M., & Theodosi, E. (in press). Is treatment non-completion associated with increased reconviction over no treatment? *Psychology, Crime and Law*. The descriptive literature review information is taken from McMurrin, M., & Theodosi, E. (2004). *Offenders who do not complete treatment: A literature review*. London: Home Office.

include poor risk comparability between samples and heterogeneity of non-completers. Nevertheless it is possible that treatment non-completion may make some offenders more likely to reoffend.

## Introduction

In recent years, there has been a growth in concern about non-completion of offender treatment programmes. As was mentioned in Chapter 1, not completing versus completing treatment is associated with increased recidivism. Cann and colleagues (2003), who reported this finding, conducted an evaluation of UK prison-based cognitive skills training programmes. In this study, 2195 adult males and 1534 male young offenders who had participated in Reasoning and Rehabilitation (R&R) or Enhanced Thinking Skills (ETS) were matched one-to-one for risk, sentence length, ethnicity, offence type, and year of discharge with offenders who had not participated in these programmes. The percentages of offenders reconvicted among all those who started programmes and untreated controls were compared at 1 and 2 years post-release, with no significant differences apparent. However, when non-completers were excluded from the analyses, the percentages of adult and young offenders who completed treatment and were reconvicted at 1 year follow-up were lower than those for the no treatment comparison groups, with this effect being most pronounced with high-risk offenders. This effect was not maintained at 2 year follow-up: the percentages of offenders reconvicted did not differ significantly between programme completers and the untreated group.

To look more closely at the effect of non-completion, Cann et al. (2003) compared the percentage of programme non-completers who were reconvicted with programme completers and all starters. At 1 year, the percentage reconvicted was higher for programme non-completers than for either completers or starters, and was also significantly higher than their

untreated matched controls. This was observed for both adults and young offenders, with the effect being more pronounced in the latter group. The most worrying aspect of this research is that it indicates that non-completers do worse, in terms of reconviction, than risk-matched but untreated offenders.

In community settings, it is not unusual for between one third and a half of all starters to fail to complete programmes (National Offender Management Service, 2005a), whereas the non-completion rate for programmes run in prisons is lower at around 9% for adults and 14% for young offenders (Cann et al., 2003). At the very least, running services that offenders start but do not complete is uneconomical. More importantly, high rates of non-completion call into question whether offenders are being appropriately selected onto treatments, if the treatments are relevant and responsive to offenders' needs, and how well treatments are organised and delivered. This has implications for the assessment of motivation. Indeed, non-completion can be seen as an indicator of a lack of motivation, and if motivation is properly assessed and offenders selected accordingly, it could be argued that participants should not fail to complete treatment. However, it is important to bear in mind that internal motivation for treatment and/or behaviour change may not be the only factor important in completing treatment, and external factors, such as service design and delivery, also play a part. Given that there is accruing evidence that non-completion of treatment is a predictor of recidivism (Hanson & Bussière, 1998), and that rates of non-completion are high, this phenomenon requires further investigation.

One observation is that the characteristics of the subset of offenders who are allocated to treatment programmes but do not complete these

programmes, i.e., non-completers, are the same characteristics that are related to risk of reoffending. Nevertheless, there is another consideration, which is that non-completion of treatment may actually be detrimental to offenders with respect to reoffending outcome. Investigation of this possibility requires examination of the recidivism of treatment non-completers compared with untreated controls (offenders who were never allocated to treatment and never received treatment). If more non-completers offend than untreated controls, then there would be a suggestion that treatment programmes do some offenders a disservice. To begin to clarify this issue, a systematic search of the literature on non-completers of offender treatment was carried out, aiming to access both published and unpublished material. This is reported here in two parts: first, a literature review of offender treatment non-completion, and second, a meta-analysis of a subset of studies that compared recidivism outcomes of non-completers and untreated offenders.

## Part I

### Aim

Since non-completers have been found to reoffend more than those offenders who complete treatment, it is useful to look at the characteristics of non-completers. Given that non-completion can be taken as an indicator of a lack of motivation, differences identified could inform programme selection and treatment protocols. It is also possible that the relationship between non-completion and reoffending may be explained by moderating variables. Hamberger, Lohr & Gottlieb (2000) group the variables that differentiate

completers and non-completers into programme characteristics (e.g., duration, phases of treatment), system characteristics (e.g., prison or community), and client characteristics (e.g., age, employment, risk). Clearly, motivation to change and to enter treatment is affected by the programmes on offer, the context in which one finds themselves, and individual characteristics. Indeed, there will be interactions between these characteristics to varying degrees. Therefore, to look at programme, system and individual characteristics will be to tease out factors that have an impact on motivation. Here, the focus was on programme and individual characteristics. The first aim, therefore, was to describe differences between completers and non-completers obtained from the literature search.

### **Method**

Since meta-analyses of offender treatments indicate that cognitive-behavioural treatments are most effective in reducing recidivism (McGuire, 2002), the initial focus was on cognitive-behavioural programmes, and therapeutic communities (TC) with a cognitive-behavioural component. Relevant databases were searched using terms relating to offending (offender, offending), treatment (treatment, program, intervention), completion (completer, non-completer, drop-out, compliance, default, refusal), treatment type (i.e. cognitive behavioural) and recidivism (recidivism, reoffending), using truncation and wildcards where appropriate. These databases were: PsychInfo, PubMed/Medline, Web of Knowledge, British Education Index, Dissertation Abstracts, Cochrane Library, Educational Resources Information Centre, Applied Social Sciences Index and Abstracts, National Criminal



Justice Reference Service Abstracts, Social Services Abstracts, Sociological Abstracts, and Criminal Justice Abstracts. Searches were complete up to February 2004. In addition, material was sought via the Internet, email Forensic Networks, and personal contacts.

### *Studies*

Two hundred and fifty-four articles were highlighted during the literature search. However, not all of the articles were relevant. All article abstracts found during the search were obtained and checked manually for relevance and duplication. Publications were excluded from the review if they were not empirical, there was no analysis of non-completers, there was no detail about differences between completers and non-completers, they did not detail any type of treatment programme, or the intervention was not cognitive-behavioural in nature or did not report a therapeutic community with cognitive-behavioural components. Therefore, included in this review are 40 articles detailing cognitive-behavioural interventions and therapeutic communities with cognitive-behavioural components addressing offending generally, specific types of offending, such as sexual offending and violence, and offending-related problems, such as substance misuse. Males and females, youth and adults, prisoners and probationers, and treatments in secure and community settings were all considered.

## Review

### *Completion rates*

The National Probation Service annual report (Home Office, 2004) indicates variable completion rates across programmes. Offence-specific programmes, such as violence and drink-driving programmes had good completion rates. Programmes for treating substance use and sexual offending had poorer completion rates. Completion rates of three cognitive skills programmes (Think First, R&R, and ETS) varied, with length of programme being one possible explanation for this. Completions are calculated against initial number of referrals, although the numbers starting treatment were considerably fewer. The numbers receiving treatment orders were fewer than the numbers of referrals, and the number starting treatment were still fewer than those receiving treatment orders. It would be interesting to know the proportions of non-starters to referrals, as well as the proportions of non-completers to treatment starters, and the nature of the reasons for the differences (administrative, agency, or client).

### *Programme characteristics*

Evaluation of R&R and ETS in UK prisons has shown that higher drop-out rates are significantly associated with fewer courses run by tutors per year and with poorer institutional audit scores, particularly on institutional support for programmes and through-care of work for the prisoner after programme completion (Blud, Travers, Nugent & Thornton, 2003). In one study, aftercare was associated with better resettlement 6 months after release from a drug TC (Hiller, Knight, Devereaux & Hathcoat, 1996). Relating to treatment phase,

Mosher and Phillips (2002) found completion more likely for those admitted later in the treatment programme, when it was at a more mature stage in its development.

Studying 61 men in a community domestic violence programme, DeHart, Kennerly, Burke and Follingstad (1999) found that programme attendees were more likely than drop-outs to have someone checking their attendance, whether family or legal personnel. Similarly, level of supervision was the reason proposed by Maletzky and Steinhauser (2002) for different rates of drop-out for different types of sexual offence.

#### *Client characteristics*

##### Sentence

In prison, lifers were more likely to complete cognitive skills training and non-completers were more likely to have shorter sentences and be on a second sentence (Robinson, 1995). Completers had significantly longer initial prison sentences than non-completers and controls (Schweitzer & Dwyer, 2003) or refusers (McGrath, Cumming, Livingston & Hoke, 2003). Non-completers in a prison aggression control programme were more likely to be from maximum security (Wormith & Olver, 2002).

In the community, prison parolees were more likely to complete than those on community sentences (Berry, 2003). In UK probation programmes, being breached, having an order revoked, or being transferred accounted for over half of drop-outs (Home Office, 2004).

## Risk

Compared with treatment completers, treatment non-completers have been shown to be higher risk, using a variety of measures. They have higher scores on statistical risk calculation scales (BOTEC, 2003; Craissati & Beech, 2001; Wormith & Olver, 2002), have a higher pre-treatment offence rate (i.e., average number of offences per year; Polaschek & Dixon, 2001) and more recorded offences (Babcock & Steiner, 1999; Kane, 2002; Zanis et al., 2003). Wormith and Olver (2002) have also shown that increased recidivism rates in treatment non-completers may be accounted for by the fact that non-completers are high-risk offenders: predictors of risk are also predictors of treatment non-completion. However, McGrath et al. (2003) found that their three groups of sex offenders (completers, non-completers and refusers) did not differ on risk as calculated by RRASOR and Static-99. Also, Walters (2005) has shown that it is the low-risk non-completers who are more likely to offend compared with low-risk completers or high-risk offenders.

## Offence type

Related to risk is offence type. Completers of cognitive skills programmes are more likely to be sex offenders and drug users, and less likely to be non-violent property offenders (Robinson, 1995). In a domestic violence programme, Hamberger et al. (2000) noted non-completers as having more violent offences. Similarly, women prisoners in a TC for substance misusers are less likely to complete if they have a record of violent offences (Mosher & Phillips, 2002). In sex offender treatment, more sexual convictions and more contact offences are associated with non-completion

(Browne, Foreman & Middleton, 1998; Craissati & McClurg, 1997; Schweitzer & Dwyer, 2003), and more general and violent offences are associated with completion (McGrath et al., 2003; Moore, Bergman & Knox, 1999). In some studies, incest offenders have been found more likely to complete and rapists less likely (Hersh, 1999), but not in other studies (Shaw, Herkov & Greer, 1995). In a retrospective study of 7275 sex offenders who received community cognitive-behavioural therapy (CBT), Maletzky and Steinhauser (2002) noted differential premature treatment termination across offence types: rapists (11%), paedophiles (15%), child molesters (24-33%), and exhibitionists (31%). They speculate that it was not the offence type *per se* that explained early treatment termination, but the amount of supervision associated with more serious offences.

### Age

In prison-based studies, older offenders are more likely to complete programmes (Eisenberg & Fabelo, 1996; Mosher & Phillips, 2002), whereas non-completers tend to be younger (Hersh, 1999; Robinson, 1995; Zanis et al., 2003). Shaw et al. (1995) found age did not predict non-completion in an incarcerated population of sex offenders. Age may interact with offence type, and in a community intervention for domestic violence, no main effect for age was found although younger men with more violent offenders were *less* likely to drop-out of treatment (Hamberger et al., 2000).

## Ethnicity

Mosher and Phillips (2002) identified more white completers among women substance misusers in a prison TC. In US studies of treatment for domestic violence, black Americans and non-Caucasians were less likely to complete treatment (Babcock & Steiner, 1999; Hamberger et al., 2000). In Canadian studies, Aboriginal offenders were less likely to complete treatment (Ellerby, 1994; Robinson, 1995; Wormith & Olver, 2002), and this was particularly true for those high-risk offenders. In a United States drug court study, African-American offenders were less likely to complete treatment, but this finding was moderated by education: African-Americans are less likely to complete treatment when they have a lower level of education (Butzin, Saum & Scarpitti, 2002).

## Education

Completers have been shown to have higher academic attainment (Babcock & Steiner, 1999; Butzin et al., 2002; Wormith & Olver, 2002) and a higher reading level (Eisenberg & Fabelo, 1996; Shaw et al., 1995). Geer, Becker, Gray and Krauss (2001) and Clelland, Studer and Reddon (1998) also found that a greater number of years in education was a significant predictor of completion in sex offenders. Programme content may be complex and effective participation may depend upon literacy (for example, diary keeping and written exercises). This suggests that consideration be given to delivering programmes in different formats or preparing offenders prior to programme entry (Wormith & Olver, 2002).

### Community stability

Community stability, such as employment and stable accommodation, correlate with completion and this is true whether the treatment was community-based (Babcock & Steiner, 1999; Browne et al., 1998; Butzin et al., 2002; Eisenberg & Fabelo, 1996; Van Stelle, Mauser, & Moberg, 1994) or prison-based (Wormith & Olver, 2002). Married men have also been identified as more likely to complete treatment (Berry, 2003; Craissati & Beech, 2001; Shaw et al., 1995), and those who never married more likely not to complete (Moore et al., 1999). In a community-based domestic violence programme, employment did not predict completion, perhaps indicating that having a partner is more important than employment (Hamberger et al., 2000). However, finding employment or entering education have been identified as reasons for 9% of drop-outs from UK probation programmes (Home Office, 2004). More generally, non-completers in a family violence programme experienced a greater number of problems (e.g., financial, legal, educational) than completers (Blanchette, Robinson, Alksnis, & Serin, 1997).

### Problem-solving

Drop-outs have been shown to be poorer at social problem-solving as measured by D'Zurilla, Nezu and Maydeu-Olivares' (2000) Social Problem Solving Inventory-Revised (Golden, 2002).

### Antisocial attitudes

In a study of family violence by Blanchette et al. (1997), compared with completers, non-completers held *less* deviant attitudes to wife-beating. This

may have been related to the observation that non-completers had experienced *less* abuse in childhood, and so had not been exposed to antisocial behaviour across their development. Non-completers in Blanchette et al's (1997) study were also more expressive of anger.

### Psychopathy

Psychopathic traits have been implicated in treatment non-completion. In one CBT treatment programme for court-adjudicated, substance-misusing, male adolescents, scores on both factors as well as the total score on the Psychopathy Checklist: Youth Version (Forth, Kosson & Hare, 2003) were inversely associated with days in treatment (O'Neill, Lidz & Heilbrun, 2003). In treatments for women substance-abusing prisoners, scores on both factors and total scores on the PCL-R (Hare, 1991) or PCL:SV (Hart, Cox & Hare, 1995) predicted attrition from a TC. Only Factor 1 scores (affective) predicted attrition from an individually tailored treatment programme where inmates were not housed on a dedicated treatment wing, and psychopathy was not related to attrition when the treatment was individualised *and* the women were resident on a dedicated treatment wing (Richards, Casey & Lucente, 2003).

### Personality disorder

Hamberger et al. (2000) identified men in a community CBT programme for domestic violence as more likely to drop-out before the end of treatment if they had high scores on the 'dysphoric borderline' factor of the Millon Clinical Multiaxial Inventory (MCMI; Millon, Millon, Davis & Grossman, 1996). In another study of 61 men in treatment for domestic violence,



personality disorder did not predict drop-out (DeHart et al., 1999). However, diagnosis of antisocial personality disorder significantly predicted treatment completion in incarcerated sex offenders (Moore et al., 1999). Chaffin (1992) found personality disorder (excluding antisocial personality disorder) significantly to predict non-completion in a sample of community treated sex offenders.

### Sexual victimisation/childhood difficulties

Having no history of sexual victimisation predicted programme completion in imprisoned sex offenders (Blanchette et al., 1997; Geer et al., 2001) and sex offenders in the community (Craissati & Beech, 2001; Craissati & McClurg, 1997). Completers were also significantly less likely to have had childhood difficulties, for example truanting, bullying, and self-harm (Craissati & Beech, 2001).

### Motivation

Lack of motivation is the primary reason for attrition from UK probation programmes, as identified by Kemshall and Canton (2002). In sex offender treatments, lack of motivation is inferred from offence denial and failure to progress in treatment. Not engaging sufficiently in groups, denying the offence and demonstrating a lack of behaviour modification over a substantial period of time can all lead to exclusion (Clelland et al., 1998; Hunter & Figueredo, 1999; McGrath et al., 2003; Schweitzer & Dwyer, 2003). Geer et al. (2001) found that those less likely to minimise their offence or excuse behaviour were significantly more likely to complete treatment. Similarly, treatment completers

compared with non-completers have been identified as acknowledging the seriousness of their problems (Eisenberg & Fabelo, 1996). In a community treatment for domestic violence, attendees unexpectedly travelled *further* to attend treatment than did drop-outs (DeHart et al., 1999). These may be taken as indicators of motivation for treatment.

### Failure to progress in treatment

Failure to progress in treatment is a reason for removal, particularly in the longer sex offender treatment programmes (Aytes, Olsen, Zakrajsek, Murray & Ireson, 2001; Clelland et al., 1998; Scalora & Garbin, 2003). Linked to this, deteriorating in treatment was found to have a positive association with non-completion in a community sex offender programme (Browne et al., 1998). Although this may be evidence for a lack of motivation on the part of the offender, it could equally be that the programme was unsuited to their needs and abilities.

### Disruptive behaviour and rule-breaking

Failure to attend sessions, violating rules and regulations, and disrupting the operation of the treatment group are common reasons for termination of treatment (e.g., Browne et al., 1998; Geer et al., 2001; Hunter & Figueredo, 1999; Marques, Day, Nelson & West, 1994; McGrath et al., 2003; Schweitzer & Dwyer, 2003). Specific violations include violence and alcohol or drug use (Home Office, 2004; Moore, et al. 1999). However, it remains to be seen whether this is evidence of lack of motivation for treatment, personality problems, or the programme being unsuitable.

## Conclusion

There are a range of factors implicated in treatment completion. Here, they have been grouped under the categories of programme and client characteristics; system characteristics have been subsumed under these headings. Treatment non-completion is common across all treatment types, offender types, and treatment settings. There is consistent evidence that treatment completers offend less than either non-completers or untreated controls. One question that arises is whether non-completers generally reoffend more than untreated offenders. To examine this, a subset of studies was selected for further analysis. This will be reported before presenting a general discussion.

## Part II

### Aim

The aim of this part of the chapter was to examine how non-completers compare with untreated offenders with regard to later offending, so the studies sought were those that gave information about an untreated sample. In drawing comparisons, differences in pre-treatment risk need to be considered. In comparing treatment and no treatment groups, it is important that the treated group should not be lower risk than the untreated group at the outset, since this would artificially inflate the effect of treatment. A well designed randomised or quasi-experimental study would likely minimise group differences, or at least ensure that there is no systematic bias (Weisburd, Lum & Petrosino, 2001). In poorly designed applied criminological research, untreated comparison groups may actually be of *higher* risk than treated

groups, perhaps because the reasons for them being untreated relate to a purported lack of motivation for treatment and/or behaviour change, reoffending, imprisonment, or treatment refusal. Therefore, studies were included where the comparison groups were unlikely to be overall lower risk than the treated group.

### Method

Criteria for inclusion in this part of the chapter were that the study should (a) describe a cognitive behavioural intervention (for clarity, therapeutic community studies were not included), (b) present reoffending data on completers, non-completers, and an untreated group, and (c) utilise an untreated group that should not be constituted in a way that might lead to it consisting of offenders at lower risk of reoffending than the treated group. Therefore, studies were accepted in which groups were randomised, risk-matched, likely to be higher risk (e.g., licence revoked; imprisoned), or unlikely to differ systematically in terms of risk (e.g., waiting list).

### *Studies*

Sixteen studies reporting 17 samples matched the inclusion criteria. Information about each study is presented in Table 1.

### *Analysis*

Effect sizes were calculated using proportions reconvicted using DSTAT (Johnson, 1989)<sup>2</sup>. In those single samples that were investigated for

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<sup>2</sup> All calculations were conducted by Mary McMurrin.

different types of offending, only one aspect was selected for the meta-analysis, namely the offence type addressed in treatment. In terms of outcome, recidivism was used rather than revocation, readmission, or recall. Prior to conducting each meta-analysis, the homogeneity of the sample was checked using the Q statistic. When Q exceeded the critical level of the chi square distribution at  $\alpha = .05$ , the presence of variability due to factors other than sampling error was suspected. Homogeneity was achieved by deleting outliers, those studies whose effect sizes indicate that they are not drawn from the same population as the others, until Q was no longer significant. The mean attained after removal of outliers may be a better representation of the distribution of effect sizes.

Table 1.

Effect sizes (ES) for non-completers compared with untreated offenders.

Study	Treatment /offender type	Comparison group	Non-Completers	Outcome	Untreated (N reoffend/N total)	Completers (N reoffend/N total)	Non-completers (N reoffend/N total)	ES (d)	
								No Tx/ Tx	No Tx/ NC
Aytes et al. (2001)	Community CBT for sex offenders (sex not stated)	Treatment-eligible offenders whose licence was revoked, who moved away, or were deemed 'inappropriate'	Treatment terminated for (1) negative and (2) neutral reasons	Sexual offending 5 years post-treatment	7/149	1/170	(1) 17/157* (2) 1/68	0.26	(1) -0.23* (2) 0.17
Babcock & Steiner (1999)	Feminist CBT with male probationers convicted of domestic violence	Domestic violence offenders whose probation order was revoked and who were imprisoned	Attended mean 5.8 sessions compared with 32.0 for completers	Any domestic violence 2 years after sentencing	34/55	8/106	40/178	1.52	0.90
Berman (2004)	Cognitive skills training (R&R) for male prisoners	One-to-one risk matched controls	Drop-outs	Reconvictions with sentence to prison or probation at average 3 years post-release	272/451	102/212	44/64	0.25	-0.17

Berry (2003)	Community CBT for men focusing on violence	One-to-one risk-matched controls	Non-completion of a 10 week programme	Reconvictions for violence at 17 months post-treatment	6/18	16/64	8/18	0.19	-0.22
Cann et al. (2003)	Cognitive skills training with (1) adult male and (2) young offenders in prisons	One-to-one risk matched controls	Drop-outs	Reconvictions 1 year post-release	(1) 388/1993 (2) 466/1314	(1) 339/1993 (2) 412/1314	(1) 58/202 (2) 104/220	(1) 0.06* (2) 0.09*	(1) -0.23* (2) -0.25*
Golden (2002)	Cognitive skills training with male and female probationers	One-to-one risk matched controls	Drop-outs	Recidivism for new offences 3-12 months after treatment completion	12/60	5/38	4/22	0.18	0.05
Hollin et al. (2004)	Cognitive skills training and CBT programmes for male and female probationers	Randomly selected sample of offenders sentenced to probation	Non-completers	Reconvictions 1½ to 3 years at-risk	2104/3305	319/957	545/751	0.63	-0.19
Marques et al. (2005)	CBT for male sex offender volunteers for treatment in correctional service special hospital	(1) Randomised treatment volunteers, and (2) treatment non-volunteers	Less than 1 year of a 2 year programme	(a) Sexual offending, and (b) violent offending average 8 years after release	(1a) 45/225 (1b) 27/225 (2a) 42/220 (2b) 33/220	(a) 41/190 (b) 30/190	(a) 5/14 (b) 4/14	(a) 0.04	(a/1a) -0.39* (a/2a) -0.42 (b/1b) -0.50 (b/2b) -0.37

McGrath et al. (2003)	Prison-based CBT with community aftercare for male sex offenders	Untreated refusers	Mean 14.5 months of treatment compared with 30.6 months for completers	(a) Sexual, (b) violent, (c) other, and (d) any offences at average 6 years after release	(a) 27/90 (b) 28/90 (c) 32/90 (d) 52/90	(a) 3/56 (b) 7/56 (c) 17/56 (d) 20/56	(a) 15/49 (b) 8/49 (c) 17/49 (d) 24/49	(a) 0.63	(a) -0.01* (b) 0.34 (c) 0.02 (d) 0.18
Porporino et al. (2002)	Structured CBT drug programme with prisoners	Offenders matched for substance use and criminality	Drop-outs	Reconviction 1 year post-release	156/711	108/711	15/75	0.17	0.05
Robinson (1995)	Cognitive skills training with male prisoners	Waiting list controls	Drop-outs mainly for negative reasons and dismissals	(a) Any readmissions 1 year following release, and (b) new convictions 1 year following release	(a) 190/379 (b) 94/379	(a) 642/1444 (b) 284/1444	(a) 176/302 (b) 87/302	(a) 0.11 (b) 0.13*	(a) -0.16 (b) -0.09*
Scalora & Garbin (2003)	CBT treatment for male sex offenders in a secure hospital	Crime-matched prisoners	(1) Terminated or (2) dropped out within 6 months of treatment that lasted mean 28 months, and (3) total (1+2)	Sexual offending 54 months post-release	35/116	1/33	(1) 5/45 (2) 7/45 (3) 12/45	0.65	(1) 0.44 (2) 0.33 (3) 0.08*



Schweitzer & Dwyer (2003)	Prison-based CBT for male sex offenders	Risk-matched controls	Non-completers	(a) Sexual offending, (b) non-sexual, and (c) any offending 5 years post-release	(a) 8/164 (b) 15/164 (c) 23/164	(a) 6/196 (b) 20/196 (c) 26/196	(a) 6/85 (b) 9/85 (c) 15/85	(a) 0.09	(a) -0.09* (b) 0.05 (c) -0.10
Stewart-Ong et al. (2004)	Cognitive skills (Think First) with male and female probationers	Court-ordered non-starters	Non-completers	Any offence at 12 months from date of sentence	90/122	28/63	63/82	0.63	-0.07
Van Voorhis et al. (2004)	Cognitive skills training (R&R) with parolees (sex not stated)	Randomised to no treatment control	Drop-outs	Re-arrest or revocation 9 months after completion of treatment	94/236	29/139	56/94	0.41	-0.40
Worling & Curwen (2000)	Community-based CBT for male and female adolescent sex offenders	(1) Assessment-only, and (2) treatment refusers	Drop-outs before 1 year of a programme that lasted mean 24 months	(a) Sexual, (b) violent, (c) non-violent, and (d) any offending at average 6 years after initial contact	(1a) 6/46 (1b) 13/46 (1c) 26/46 (1d) 27/46 (2a) 3/17 (2b) 7/17 (2c) 6/17 (2d) 9/17	(a) 3/58 (b) 11/58 (c) 12/58 (d) 20/58	(a) 7/27 (b) 9/27 (c) 13/27 (d) 13/27	(a/1a) 0.28	(a/1a) -0.34 * (a/2a) -0.20 (b/1b) -0.11 (b/2b) 0.16 (c/1c) 0.17 (c/2c) -0.26 (d/1d) 0.21 (d/2d) 0.10

Note. \* Where there is more than one effect size, the one marked is included in meta-analysis. Conventionally, an ES of 0.20 is considered small; 0.50 is medium; and 0.80 is large.

## Results

The 17 samples of offenders consisted of 7774 completers, 2385 non-completers, and 9434 untreated offenders. Of all those allocated to treatment (i.e., completers and non-completers), the proportion of non-completers was 23.55%. The 9 samples of offenders in institutions consisted of 6149 completers, 1056 non-completers, and 5443 untreated offenders. The proportion of non-completers in the institutional samples was 14.66%. The 8 samples of offenders in community programmes consisted of 1595 completers, 1329 non-completers, and 3991 untreated offenders. The proportion of non-completers in the community samples was 45.45%.

Overall, there is consistent evidence for the effectiveness of treatment programmes, particularly on the type of offence targeted in treatment. When comparing untreated offenders with treatment completers on reconviction for the offence type focused upon in treatment, it is apparent that untreated offenders are more likely to be reconvicted. Effect sizes range from 0.04 to 1.52, as shown in Table 1. In calculating a mean effect size, where more than one effect size was available in the same study only the primary one was included (marked \* in the table). In this analysis, homogeneity was reached by the exclusion of five studies ( $Q_{(11)} = 19.14, p = .059$ ), these being Babcock and Steiner (1999), Hollin et al. (2004), McGrath et al. (2003), Stewart-Ong, Harsent, Roberts, Burnett and Al-Attar (2004), and Van Voorhis, Spruance, Ritchey, Listwan and Seabrook (2004). Of the remaining studies, the total number of untreated offenders was 5626 and the total number of offenders who completed treated was 6423, and the overall effect size was in favour of treated groups, with a  $d$  value of 0.11 (95% CI = 0.07 to 0.15). Therefore,

although the effectiveness of treatment *per se* is not the focus of this study, the studies under examination are effective overall and none appear to make treated offenders worse.

Comparing recidivism of untreated controls and non-completers, the results are mixed, ranging from a positive effect size (i.e., fewer non-completers reoffend) of 0.90 to a negative effect size (i.e., fewer untreated reoffend) of -0.50. The removal of Babcock and Steiner (1999) achieves homogeneity in this sample ( $Q_{(15)} = 15.37, p = .425$ ), leaving 16 samples with a total of 9379 untreated and 2207 non-completers. The mean effect size is -0.16 (95% CI -0.13 to -0.22). This effect size is negative, meaning that non-completers are more likely to be reconvicted than untreated offenders.

Analyses were then conducted to establish the pattern of recidivism for untreated controls and non-completers of treatment in institutions and, separately, in the community. There are 9 samples of institutional programmes, which are homogeneous ( $Q_{(8)} = 9.30, p = .318$ ), with 5443 untreated and 1056 non-completers. The mean effect size is -0.15 (95% CI -0.08 to -0.22), indicating that non-completers of institutional programmes are more likely to be reconvicted than untreated. There are 8 samples of community programmes, requiring the removal of Hollin et al.'s (2004) and Babcock and Steiner's (1999) studies as outliers ( $Q_{(5)} = 4.64, p = .464$ ), leaving 631 untreated offenders and 400 non-completers. The mean effect size is -0.23 (95% CI -0.11 to -0.36), indicating that non-completers of community programmes are also more likely to be reconvicted than those untreated. Thus, non-completers of both institutional and community programmes are more likely to be reconvicted than offenders in untreated

comparison groups, with this effect being more marked for offenders in the community.

## Discussion

The programme and individual factors listed in Part I describe many factors that will influence goal pursuit (motivation). Goals will be pursued, or not, as a result of interactions between these factors. Many of the differences between completers and non-completers are factors that are currently targeted in treatment selection (e.g. motivation) and within treatment programmes (e.g. problem-solving). This suggests that current selection criteria and treatment protocols need to be improved in order to prevent non-completion. However, this arena would benefit from more robust research – the results here are by no means consistent and matching of participants for factors listed in the review would reduce possible confounds.

The meta-analysis reported in Part II indicates that treatment non-completers are more likely to be reconvicted than are offenders in untreated comparison groups. The evidence here suggests that non-completers may actually be disadvantaged by treatment and this effect is more pronounced for those treated in the community. Before examining the implications of these findings, it is important to consider the chapter's main limitations.

Although the studies were judged to have treated and untreated groups comparable on risk of reconviction, this may not, in fact, be the case. Two randomised controlled treatment trials were included. In the Marques, Wiederanders, Day, Nelson and van Ommeren (2005) study, risk was not equal across groups; Van Voorhis et al. (2004) did not give baseline

comparative risk information for treated and untreated groups. There was one randomly selected comparison sample (Hollin et al., 2004), in which the treated and untreated groups were noted to differ on offence type, number of previous convictions, and an actuarial risk score, although statistical control of these confounding variables was included in analyses. Seven of the studies matched samples one-to-one for risk. Matching can only be a successful procedure when the choice of variables is relevant and comprehensive, and the measurement of these variables is valid and reliable (Raynor, 2004). Given the range of variables implicated in risk, this is difficult to achieve. Therefore, the finding in this study that non-completers do worse in treatment than untreated offenders should be approached with caution in that baseline differences in risk between the groups cannot be ruled out.

It is important to note that the category of non-completers contains those who leave treatment for a variety of reasons. Wormith and Olver (2002) suggest three categories of non-completion: administratively-based exit (e.g., released or transferred), agency-initiated expulsion (e.g., removed for rule-breaking or disruptive behaviour), or client-initiated drop-out (e.g., did not wish to continue). Further refinement of the drop-out category would be helpful, since non-completion may be for positive reasons (e.g., finding a job or entering education), negative reasons (e.g., dislike of the programme or difficulties with the content), life events (e.g., a relationship breakdown), practical reasons (e.g., difficulties attending sessions), or getting arrested for a past crime. There are more opportunities to discontinue treatment available in the community, particularly opportunities to reoffend and risk of arrest, which may explain both the higher incidence of non-completion and the

greater adverse effect of non-completion in the community samples. Clarity of how reasons for non-completion are categorised is imperative, since the interpretation of reasons for non-completion is not consistent across the literature. For example, removal from a programme for misbehaviour can be considered a client-choice factor, rather than an agency factor, in that the offender chooses to behave in a way known to lead to exclusion (Blanchette et al., 1997). In addition to different reasons for non-completion, there are different degrees of non-completion. Non-completion can mean attending only one or two sessions, getting to the half-way stage, and almost completing a programme. It is likely that there is a dosage effect, an issue that requires further examination. Therefore, non-completers are a mixed group, who cease treatment at different stages and for different reasons, and so it is likely that among this group are those who do worse, and those who do better, than untreated offenders. Issues relating to why offenders do not complete treatment and the amount of treatment in relation to outcome require attention in future research.

Another important point is that researchers typically address only a small number of commonly-known factors and in regression analyses, the amount of variance explained by these factors can be small. In the Hamberger et al. (2000) study of treatment for domestic violence, for example, where age, education, employment, alcohol abuse, criminal record, and personality problems were entered into the analysis, only 7.6% of the variance between completers and non-completers was explained. In their regression, Babcock and Steiner (1999) found that attending treatment

accounted for only 5% of the variance in recidivism. A great deal of the variance related to non-completion remains to be accounted for.

Despite methodological problems, it remains entirely possible that non-completion really does make some offenders more likely to reoffend than if they had not been treated at all. Removal from a treatment programme may increase anti-authority and antisocial attitudes. Interruption of a treatment programme may mean that difficult issues have been raised but the offender has not yet learned the skills for coping with these issues. Drop-out from a treatment programme may mean that the offender has been made to feel confused, lacking in confidence, or worthless. While it is likely that higher risk offenders may be more vulnerable to disadvantage by non-completion, further investigation of precisely who is most at risk from non-completion is warranted. If programmes are doing some offenders a disservice, this needs to be known and measures should be taken to avoid it. It is worth noting, however, that it does not necessarily follow that retaining would-be non-completers on programmes will ensure successful outcomes with them.

New measures and methods may not be the answer. What may be needed is better application of existing procedures, such as revision of selection criteria (for example, motivation) to ensure that offenders are placed on relevant programmes and that they will be administratively able to complete them; provision of extracurricular support for those who may be struggling with aspects of the programme; and specialist referral for work on additional problems. With regard to the relevance of treatment, McMurrin and McCulloch (in press) reported interviews with prisoners who did not complete Enhanced Thinking Skills (ETS). One major reason for non-completion was

that current concerns were not addressed. Prisoners were directed into ETS when they perceived their main problems to be related to other issues, for example substance use or relationship issues, and so their commitment to ETS was low.

Those programme and individual factors found to be associated with completion and non-completion can go some way towards identifying targets for reduction of non-completion, and indirectly, recidivism. Programme and system characteristics could be addressed in order to increase completion rates (for example, altering level of supervision and providing adequate aftercare). Assessment of cognitive abilities might be useful in directing offenders to groups designed for different levels of ability. However, better measures of motivation and treatment need could be used. The concept of motivation has been consistently mentioned throughout, but it is unclear how it is defined and measured. It is possible that the PCI may have a role to play in the assessment of offenders' motivation to enter treatment and to change offending behaviour.



## **Chapter 3**

### **Development of the Personal Concerns Inventory (Offender Adaptation).<sup>1</sup>**

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#### **Summary**

Measuring offenders' motivation for treatment is important both for treatment selection and monitoring treatment engagement, yet few psychometrically robust measures of offenders' motivation exist. The Personal Concerns Inventory (PCI; Cox & Klinger 2004d) was developed to assess motivation to change in people with addictive behaviours. It consistently identifies two motivational profiles - adaptive and maladaptive. The aims of this chapter were to adapt the PCI for use with offenders and assess its suitability for use with this population. Following amendment, 12 men currently serving prison sentences were interviewed using the offender adaptation of the PCI (hereon called the PCI:OA). Personal concerns relating to 'Self-change' and 'Partner, family and relatives' were most commonly identified. Scores on the rating scales suggested that offenders show adaptive and maladaptive profiles, similar to those identified in previous research. The issue of whether the PCI:OA is better viewed as a measure of motivation or a motivational enhancer remains unresolved and this, along with testing of the PCI:OA's psychometric properties, requires further research.

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## Introduction

The PCI was developed from the TCC as a way to assess motivational structure generally, but it has been used most often with problem drinkers. The original PCI (Cox & Klinger, 2004d) was designed as a self-report measure of motivation, developed to identify participants' key concerns in a set of 12 life areas (the idiographic component; see page 20), and then to evaluate these using a set of 10 rating scales (the nomothetic component; see page 22). The idiographic component involves collection of individualised data (such as personal goals), and the nomothetic component is the standard part of the assessment, completed in the same manner by all participants regardless of data obtained using the idiographic component (Cox & Klinger, 2004b). Studies have consistently found two motivational profiles called adaptive and maladaptive. Scales loading positively on the adaptive motivation factor are Commitment, Happiness and Likelihood, and this factor includes scales that identify the perceived importance of, achievability of, and control over goals (Cox, Pothos & Hosier, in preparation; Fadardi, 2003; Fadardi & Cox, 2002; Hosier, 2002; Hosier & Cox, 2002). The key scales loading on the maladaptive motivation factor are Commitment, Happiness, and Importance, which load negatively (Cox et al., in preparation). Overall, those participants with higher scores on maladaptive motivation described less commitment toward their goals, less happiness when goals are achieved, and took a longer time to achieve them. The psychometric properties of the PCI were described in Chapter 1 and so they will not be repeated here, where the focus will be on the development of an offender-specific PCI.

It is important to consider whether theories and tools developed from addiction theories are applicable to offenders, and the theoretical commonalities between problematic substance use and repeated offending were highlighted in Chapter 1. As a result, the main purpose of this chapter is to validate the PCI as an assessment of offenders' motivation to change offending behaviour. If the adaptive and maladaptive motivation profiles that have been found in previous work with the PCI are found when using an adapted version, then support is provided for the applicability of the PCI to offenders. This chapter details a pilot study of an offender-specific PCI. There is an ethical obligation to conduct a pilot study to test the adequacy of the PCI with offenders before conducting a larger scale study. In addition, conducting a pilot study will ensure that the research is well-received by participants and that any difficulties the participants and/or researchers have can be addressed prior to the full study (van Teijlingen, Rennie, Hundley & Graham, 2001). It was hypothesised that the PCI will identify adaptive and maladaptive motivational profiles in offenders, as it does in problem drinkers. Furthermore, the PCI could be adapted to investigate the role of offending (rather than drinking) in helping or hindering goal attainment, with this being a key to motivating offenders to change their behaviour.

## Method

### *Participants*

Twelve men in a UK prison were approached to take part in this study, although 1 prisoner was later excluded because he reported no concerns in any of the life areas of the PCI:OA. The mean age for the remaining 11

participants was 26.82 years (SD = 4.56), and the mean time since first conviction was 6.82 years (SD = 3.84). Index offences included: acquisitive offences, drug offences, criminal damage, violent offences, driving offences and manslaughter.

### *Measures*

#### *The Personal Concerns Inventory: Offender Adaptation*

The PCI has already been described in Chapter 1 and will not be repeated here. However, amendments were made to the original PCI to ensure that questions pertinent to offenders were included. First, two life areas were added: (1) 'My offending behaviour', where respondents were asked to identify any concerns about their offending, and (2) 'Current living arrangements', an area intended to tap issues about detention. Second, the last two rating scales were changed to refer to offending rather than drug or alcohol use. Third, the PCI was administered as a semi-structured interview rather than a self-report schedule to avoid any difficulties with literacy, and to develop rapport with the respondent to encourage the identification of concerns.

### *Procedure*

The study was approved by HM Prison Service's Area Psychologist for Wales and the Prison Governor. The participants were interviewed individually in classrooms within the prison's Resettlement Unit. These rooms were private and relatively quiet. Confidentiality was assured and written informed consent was obtained. The PCI:OA instructions were read aloud.

The meaning of 'concerns' was explained as something either positive or negative that participants might want to address in any life area. Unlike the original version, participants did not first consider all life areas, but rather each area was introduced in turn and concerns recorded; if the participant had no concerns in any life area, the interviewer moved on to the next. Interviews took between 2 and 3 hours to complete.

## Results

### *In which life areas do offenders have concerns?*

The number of participants involved in this study is too few to permit reliable statistical analysis. Therefore, descriptive statistics will be presented, including some qualitative observations. Table 1 shows the mean number of concerns identified in each life area. As can be seen, concerns were identified in all life areas except for Other. On average, participants generated the greatest number concerns in the life area, Partner, family and relatives. In order to provide an indication of some of the concerns participants had, the life areas with the highest average number of concerns are discussed in more detail. Concerns listed in Partner, family and relatives related to family and partner's views of the position the participant was in, for example, "All my family are upset at me being in prison. I would like to stop offending and not come back to prison"; building relationships with family members, for example, "I had an argument with my brother ... I would like us to settle our differences and for things to be the way they used to be"; issues with children, for example, "I've split up from my girlfriend. I don't see my boys...."

Table 1.

Mean number of concerns per life area (N = 11).

Life Area	Mean (SD)
Partner, family and relatives	1.64 (1.21)
Self-changes	1.45 (0.82)
Employment and finance	1.00 (0.63)
Substance use	1.00 (0.89)
My offending behaviour	0.82 (0.75)
Education and training	0.82 (0.98)
Friends and acquaintances	0.73 (0.90)
Home and household matters	0.64 (0.50)
Hobbies, pastimes and recreation	0.64 (0.81)
Health and medical matters	0.64 (0.81)
Current living arrangements	0.27 (0.47)
Spiritual matters	0.09 (0.30)
Love, intimacy and sexual matters	0.09 (0.30)
Other areas	0.00 (0.00)

The life area with the second highest number of concerns, on average, was that of Self-changes. Responses suggest that many of the concerns in this area were related to self-confidence, for example, "I lack the confidence I had when I was 19-20. I'd like to handle conflict situations better, build my self-confidence and be more assertive". In addition, concerns related to appearance: "I put on weight from eating when I started on cannabis. I want to lose some more weight and get really fit like I used to be"; personality

issues: "The angry side of my personality scares me sometimes, I'd like to learn to control my anger" and keeping out of trouble: "I can't be there for my daughter if I'm in here [prison], I'd like to be out [and keep out] of prison and be there for her".

#### *How do offenders rate their concerns?*

There are two methods of studying participants' motivational profiles. One is to average the scores for each rating scale across all life areas, and the second is to average scores for rating scales for each separate life area (Cox & Klinger, 2002). The first method was selected in order to get an overview of each participant's motivational structure in the context of all life areas. Motivational profiles for individuals across all the life areas are presented in Table 2. The three scales that reliably, and positively, load on an adaptive motivation, and negatively, on maladaptive motivation are Likelihood, Commitment, and Happiness.

As can be seen in Table 2, 4 participants (participants 4, 8, 10 and 11) have mean scores above the group mean (shown in the bottom row) on Likelihood, Happiness, and Commitment (scales which load positively on adaptive motivation), with participant 4 having the highest scores on these scales. If other analyses of the PCI can be extrapolated to this population, then participant 4 appears to have the most adaptive motivational profile. By contrast, participants 1, 2, 3 and 9 appear to have maladaptive motivational profiles, with mean scores below the group means for Happiness, Commitment and Importance (scales which load negatively on maladaptive motivation).

Table 2.

Total number of concerns identified, with mean scores for each rating scale.

N	Total	Mean										
	number of concerns	concerns per area	Importance	Likelihood	Control	Knowledge	Happiness	Unhappiness	Commitment	When will it happen	Offending helps	Offending interferes
1	17	1.70	4.69	4.26	4.37	4.71	4.90	0.89	4.01	2.90	0.50	2.74
2	11	1.83	5.14	2.86	4.45	4.64	5.45	1.00	5.00	2.55	1.82	3.55
3	12	1.50	5.33	3.63	5.33	4.44	6.08	0.00	4.31	4.38	0.08	3.52
4	5	1.00	10.00	8.20	7.80	9.60	10.00	2.40	9.40	4.50	0.00	6.20
5	9	1.29	6.50	5.89	6.72	6.06	6.56	1.78	6.44	1.06	2.72	1.67
6	6	1.20	7.00	4.67	4.08	5.50	7.67	1.92	5.00	4.75	2.08	6.83
7	11	1.57	6.36	3.38	3.83	5.61	6.36	1.82	6.30	2.41	0.00	3.35
8	6	1.20	8.33	6.58	6.83	7.42	8.33	0.33	8.33	1.92	1.67	5.00
9	14	1.56	6.11	5.60	5.46	6.23	6.13	1.52	5.88	1.27	1.32	4.08
10	7	1.17	7.86	5.54	5.39	6.71	7.86	0.00	7.14	2.79	0.14	5.57
11	10	1.25	6.73	5.60	6.63	7.25	8.00	0.20	6.75	2.93	0.00	7.00
<b>Total</b>	<b>108</b>	<b>1.42</b>	<b>6.73</b>	<b>5.11</b>	<b>5.54</b>	<b>6.20</b>	<b>7.03</b>	<b>1.08</b>	<b>6.23</b>	<b>2.86</b>	<b>0.94</b>	<b>4.50</b>



However, defining profiles only in terms of the scores on scales may be misleading, since it is the combination of scores which defines the profile.

To illustrate in more detail the difference between adaptive and maladaptive profiles, data from 2 participants are presented from the life area Self-changes. Participant 4 (hypothesised to have an adaptive profile) stated his concern as: "Because of the way I've been brought up I fly off the handle, especially if someone insults my intelligence" and stated what he would like to have happen as: "Control my anger, but still stick up for myself and others". Participant 3 (hypothesised to have a maladaptive profile) stated his concern as: "People think I have a bad attitude, but I think it is just the way I express myself", and stated what he would like to have happen as: "I'd like to be able to express myself differently". Although there appears to be little difference in the verbal description of their concerns, examination of scale scores reveals important differences between these individuals. Out of a possible score of 10, participant 4 rated the likelihood of achieving his goal as 8, whereas participant 3 rated this as 3; participant 4 rated potential happiness as 10, whereas participant 3 rated this as 5. Commitment was rated by participant 4 as 7, whereas participant 3 rated this as 3. Participant 4 rated his Knowledge of what to do to achieve the goal as 8, whereas participant 3 rated this as zero. Both participants rated Offending helping as zero, but participant 4 rated Offending interfering as 10, whereas participant 3 rated Offending interfering as 5. Thus, while both participants verbally expressed positive goals, participant 4 is optimistic about achieving his goal, thinks goal achievement will bring him happiness, is committed to achieving the goal, and is clear how to approach the task, while participant 3 is less optimistic, less committed and

less clear about what to do to obtain his goal. These examples illustrate adaptive and maladaptive motivational profiles, and also serve to illustrate the importance of using both the qualitative information about concerns and the quantitative information from rating scales.

#### *Offending helping/interfering rating scales*

These rating scales were added to the original PCI to make it more amenable to use with offenders. Responses on these two scales were mixed. Returning to the 4 participants hypothesised to have adaptive motivational profiles, their mean scores ranged from 0.00 to 1.67 on the Offending helping scale. For the Offending interfering scale, mean scores ranged from 5.00 to 7.00. By comparison, the participants hypothesised to have maladaptive motivational profiles had a mean score between 0.08 and 1.82 on the Offending helping scale, and for the Offending interfering scale, mean scores ranged from 2.74 to 4.08 (see Table 2). It is interesting that there is little difference in the mean scores obtained for the offending scales between those participants hypothesised to have adaptive and maladaptive profiles. The reason for this may be an inability to distinguish between the impact of offending and the impact of prison using the PCI:OA. For example, participant 6 said that one of his concerns was to stop binge drinking. He rated his drinking offences as 5 for helping him to achieve this goal. He stated: "I may think about my time here, I don't want to come back". Similarly, participant 2 expressed a concern regarding accruing debt on an overdraft. This participant was intent on resolving this problem, but offending was rated as 5 for helping

as “it [offending] helps to make you realise what you’ve done. The experience of being in prison helps, the crime doesn’t”.

## Discussion

The aim of this study was to adapt the PCI for use with offenders and this was achieved through amendments to rating scales and inclusion of extra life areas. Through this, the pilot study reported here has provided an opportunity for a preliminary examination of offenders’ motivational structure. Based on findings from earlier studies using the original PCI and MSQ, rating scales were identified which load on adaptive and maladaptive motivational factors. The factors found in this sample *appear* to be consistent with those found in previous work, in that individuals could be identified as possessing clearly identifiable motivational structures, either adaptive or maladaptive. Thus, provisional support is provided for the ability of the PCI to measure motivation in an offender population. Although these conclusions are tentative, if previous findings can be extended to this population then it would be expected that the PCI:OA could identify those individuals who are most likely to experience positive benefits of attending treatment programmes; those participants with an adaptive motivational profile have been found to be more determined to change (Cox, Blount, Bair & Hosier, 2000). The PCI:OA could also aid identification of those who may require support in the change process. The idiographic methods used would enable detection of those life areas in which participants require the most support (e.g., for one person it may be help with relationship development, for another it may be support in finding accommodation following release). Obviously, these are hypotheses

that need to be tested if further work corroborates the validity and reliability of this new PCI.

An important finding came from the additional rating scales: 'Will my offending help things to turn out the way I want?' and 'Will my offending interfere with things turning out the way I want?' On many occasions when participants were asked these questions, they would indicate that although the offence itself did not help, being in prison could help them. Not only could participants attend accredited treatment programmes or the education department to help them achieve their goals, some participants commented that being in prison gave them time to think. However, by only mentioning offending, the rating scales made it difficult to distinguish those issues concerned with offending, and those issues concerned with being in prison. To overcome this difficulty, another two rating scales should be added to the PCI:OA. In addition to asking if offending helps or interferes with goal attainment, participants should also be asked to rate 'Will the experience of prison help things to turn out the way I want?' and 'Will the experience of prison interfere with things turning out the way I want?'

One issue which remains unclear is the matter of whether the PCI is a useful *measure* of motivation, or whether it serves as an instrument for *enhancing* motivation. As part of the pilot study, participants were asked what they thought of the interview and procedure. Consistently the researchers were informed that the experience had been a positive one. Essentially, individuals found that rather than face one insurmountable problem, discussing their concerns through the PCI:OA interview enabled them to see how such difficulties could be broken down into smaller, more manageable

goals. In one case the participant identified concerns he could overcome whilst in prison although he had previously thought such a task impossible. No kind of treatment or therapy was offered and no solutions to any of the problems identified were discussed. Nonetheless, the majority of participants stated that they felt better or more positive as a result of participating in the pilot study, and in this respect the PCI:OA appears to be a useful motivation enhancement tool. The interview itself is easy to conduct, and in this case, was used by a researcher with no specific clinical or forensic training. Thus, the PCI:OA could be a useful and economical means of enhancing motivation. As a brief motivational enhancement intervention prior to attending a treatment programme, investment of 2-3 hours time may reap very positive rewards in the longer-term. If enhancing motivation is a positive side-effect of completing the PCI:OA, the drawback is the remaining difficulty of accurately measuring offenders' motivation to change (McMurrin, 2004; Tierney & McCabe, 2002).

Despite this problem, it should be borne in mind that the original PCI and its predecessor, the MSQ, have been shown to be both valid and reliable – despite the changes that take place as a result of time and treatment. In particular the Commitment, Happiness and Likelihood scales have been shown to be stable over time, even following a treatment programme (Klinger & Cox, 2004b).

Although this study has highlighted an important change that should be made to the PCI:OA, this study has also generated many questions about the PCI:OA. As this was a pilot study, it was not possible to meaningfully test the psychometric properties. Further research is necessary to establish the

psychometric properties of the PCI:OA with a larger sample of prisoners, for example, to better establish the factor structure of the PCI:OA. In addition, the value of qualitative information from the PCI:OA has been highlighted. The issue of whether the PCI:OA enhances motivation is an important one, and needs to be considered, because it remains to be seen whether a measure of motivation to change can also be an enhancement strategy. To further develop the PCI:OA with an offender population, the issues listed above will be addressed in subsequent chapters. If adaptive and maladaptive motivational profiles are consistently found with offenders, and validity and reliability can be demonstrated, support is provided for the applicability of the PCI to offenders.

## Chapter 4

### **The Personal Concerns Inventory (Offender Adaptation): Construct validity and reliability.<sup>1</sup>**

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#### Summary

The PCI:OA must be valid and reliable if it is to be used in assessment and evaluation. The aims of this chapter were: (1) to examine construct validity through factor analysis in order to test whether the factor structure of the PCI:OA is similar to the original PCI; (2) to examine how the rating scales pertaining to offending and prison affect the PCI:OA factor structure; (3) to examine the internal consistency of PCI:OA scales and PCI:OA factors; and (4) to examine test-retest reliability of the PCI:OA scales and PCI:OA factors. Factor analysis of 129 PCI:OA interviews with the offending and prison scales excluded replicated the adaptive and maladaptive factor structure of the PCI. Including the offending and prison scales yielded a three factor solution, with factor 1 and 2 similar in both solutions. The additional factor in the three factor solution comprised Offending helps, Prison helps, and Knowledge. Internal consistency calculations (Cronbach's alpha) reached acceptable levels for the whole PCI:OA (.72), although only two individual rating scales reached acceptable internal consistency levels (When will it happen and Offending interferes). The adaptive motivation factor was internally consistent at .72, whereas the maladaptive factor was not, with Cronbach's alpha .26. Test-retest reliability was calculated from data of 54 participants who completed the

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<sup>1</sup> This chapter forms part of a paper in preparation: Sellen, J. L., McMullan, M., Theodosi, E., Cox, W. M., & Klinger E. Establishing the reliability and validity of the Personal Concerns Inventory: Offender Adaptation (PCI: OA) with adult male prisoners.

PCI:OA at initial assessment and follow-up; the time interval between PCI:OA administrations was, on average 101 days. These analyses showed that the majority of scales had significant test-retest correlations (Knowledge and Prison helps did not). Looking only at those who did not receive treatment (N = 20), only three scales correlated significantly (Control, Unhappiness, and Offending interferes). Adaptive and maladaptive factors demonstrated significant test-retest correlations for the whole sample at follow-up, but did not when including only those who did not receive treatment (N = 20) in analysis. Overall, good construct validity was found, in that the PCI factor structure was replicated with the PCI:OA. The reliability of the PCI:OA is less well supported, with some unacceptably low internal consistency values and test-retest reliability correlations. Despite the fact that most of these figures do not meet the conventional cut-off for reliability, they are comparable to results obtained using the original PCI. Reliability calculations may be affected because the PCI:OA measures a dynamic construct and also because administration of the PCI:OA itself prompts people to think about and change their goals in life. Hence, a measure of motivation such as the PCI:OA may never meet reliability criteria.



## Introduction

The Personal Concerns Inventory: Offender Adaptation (PCI:OA) is a promising measure of motivation. Previous chapters have highlighted the importance of measuring motivation and suggested that the PCI:OA may be useful for investigating offenders' motivation to change. Chapter 2 discusses how motivation is linked to non-completion of treatment programmes, which is, in turn, associated with an increase in recidivism. Thus, assessing motivation to change adequately may mean that the risk of non-completion is reduced by more accurate selection of those who are motivated for treatment, and directing offenders into treatments that address their current concerns.

Chapter 3 suggests that the psychometric properties of the PCI:OA need to be further examined in order to gather the information necessary for interpreting PCI:OA scores. Twelve men housed in a UK prison were interviewed using the PCI:OA; it was well received and scores on the rating scales suggested that offenders showed adaptive and maladaptive motivation profiles, similar to those identified in previous research. In addition, anecdotal evidence highlighted the potential of the PCI:OA to help prisoners break down large goals, into smaller, more manageable subgoals. Further development of the PCI:OA is indicated, to examine the scale's validity and reliability.

Validity and reliability are important facets of any measure, but assessing validity and reliability of an instrument designed to tap a dynamic construct such as motivation is a difficult task (Klinger & Cox, 2004b). However, knowledge about validity and reliability is required if a measure is to be of any use (Kline, 1993). Validity is the concept that the instrument measures what it is supposed to, and reliability is the notion that an instrument

consistently produces the same result. There are many types of validity, one of which is construct validity, that the “measurement reflects the hypothetical construct of interest” (Heiman, 1999, p. 496). Clearly this is important, and one way in which this can be operationalised is by factor analysis. Factor analysis reduces a large set of variables into a smaller set of variables using patterns of correlations. It creates factors that are not necessarily directly observable, but that describe a distinct construct from a set of variables (Dancey & Reidy, 2004; Field, 2005). There are two main types of factor analysis: the first is principal component analysis (PCA), and the other is simply known as factor analysis. PCA is typically used as an exploratory analysis, whereas factor analysis is used to confirm hypotheses about the data, although these descriptions are not strictly adhered to (Dancey & Reidy, 2004). Although there are some differences between the two, the terms are commonly used interchangeably. PCA simply transforms a set of variables into a smaller set of components which are uncorrelated (Dancey & Reidy, 2004), and in most cases is used when a new measure needs to be factor analysed, or a new population has been tested with an existing measure. For this reason, PCA was selected here because this is the first full analysis of the PCI:OA with an offender population.

There are two types of reliability, internal and external. Internal reliability refers to the consistency of a set of items with one another, and external reliability refers to the consistency of variables over time (Kline, 1993). The former type of reliability is typically measured using Cronbach’s alpha, and the latter is typically measured using test-retest correlations, although there are other ways in which to measure internal and external

reliability. If there is a lack of reliability in a measure, it is unclear whether any change measured by the instrument reflects a genuine state change, unreliability of the instrument, or both (Klinger & Cox, 2004b).

In order to address the matter of internal consistency of the PCI, Klinger and Cox (2004b) analysed the internal consistency of scale scores. Each current concern represents an item, allowing scores across life areas on issues such as value and attainability to constitute scales which were then subjected to analysis. Upon analysis of the first 20 goals generated by each of 182 American college students, Klinger and Cox (2004b) report Cronbach's alphas for the rating scales ranging from .81 to .97, well into the range for acceptable reliability, the cut-off for which is .70. Sharbaf, Fadardi and Cox (2004) also report acceptable internal consistency of a Persian PCI, with Cronbach's alpha ranging from .62 to .82.

Test-retest reliability has been reported for Motivational Structure Questionnaire scales (MSQ, predecessor of the PCI; Cox & Klinger, 2004e; Klinger, Cox & Blount, 1995) and these figures are shown in Table 1. The table shows test-retest reliability for a sample of 42 participants receiving treatment for substance abuse, who were sampled a week after treatment entry and after treatment 1 month later. The range of test-retest correlations is .07 to .77 (Cox, Pothos & Hosier, in preparation). Test-retest correlations of data from 40 participants with traumatic brain injury at 10 months and again after 19 months of Systematic Motivational Counselling (SMC) are also presented. The range of test-retest correlations at 10 months is .01 to .72, with the range at 19 months .01 to .48. A further 54 participants with traumatic brain injury received standard treatment in between two MSQ administrations

Table 1.

Test-retest correlations for three patient samples.

MSQ <sup>2</sup> scale	Patient groups and test-retest intervals			
	Substance abuse patients	Traumatically brain-injured patients		
		SMC <sup>1</sup>	No SMC	
	1 month	10 months	19 months	13 months
Number of goals	.66***	.17	-.03	.39**
Appetitive action	.42**	-.22	-.17	.06
Active Role	.41**	.19	.15	.14
Commitment	.07	.63***	.47***	.50***
Joy	.31*	.39*	.22	.43**
Unhappiness	.22	.17	.01	.22
Sorrow if no success	.19	.33*	.28	.25
Chances of success	.47***	.29	.28	.68***
Chances if no action	.20	.12	.09	.18
Time available	.77***	.18	.06	.21
Goal distance	.22	.01	.03	-.05
Substance effects beliefs	.64***	.72***	.48***	.24

<sup>1</sup> Systematic motivational counselling.

<sup>2</sup> Motivational Structure Questionnaire.

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Note. Taken from Klinger and Cox (2004b), p. 185.

13 months apart and again test-retest correlations are presented in Table 1, ranging from .05 to .68 (Klinger & Cox, 1986).

Clearly, most scales do not reach the accepted cut-off level for reliability (.70). However, Klinger and Cox (2004b) maintain that the PCI and its predecessor (the MSQ) are reliable measures of motivation, with some scales being more stable than others. Commitment (despite the low test-retest correlation of .07 with the substance abuse patients at 1 month), Joy, and Chances of success are cited as the most stable scales. This is despite the fact that groups had received treatment aimed at altering motivation between MSQ administrations, which would be expected to reduce the test-retest correlations observed. In fact, Klinger and Cox (2004b) comment that such test-retest correlations will represent the lower end of reliability for this very reason, although the correlations are comparable to many other personality variables.

The aim of this chapter is to establish the validity and reliability of the PCI:OA with a larger sample of offenders than reported in Chapter 3. Given the information from the pilot study reported in Chapter 3, it was expected that the factor structure of the original PCI would be replicated with the PCI:OA. Specifically, it was expected that a factor solution of adaptive and maladaptive motivation would be found, expanding upon those results obtained in the previous chapter. Further, internal consistency and test-retest reliability of the PCI:OA as a whole, and individual rating scales, were expected to equal levels of reliability found in previous studies using the original PCI.

## Method

### *Participants*

In factor analysis, Field (2005) advocates recruiting a minimum of 10-15 participants to every one variable of the assessment under study in order to produce a reliable factor solution. To recruit sufficient participants, the 12 variables (rating scales) in the PCI:OA were multiplied by the minimum number of participants required for every one variable in the measure - 10. Thus, it was necessary to recruit a minimum of 120 participants in order to reliably conduct a factor analysis.

Participants were 129 convicted adult males in a UK prison. Sixty-four prisoners were due to start a prison treatment programme, or had been on such a programme for no more than 2 weeks (in another study, this was the treatment group, but for the purpose of this chapter treatment groups were collapsed to give one sample). The treatment programmes included Enhanced Thinking Skills (ETS), Controlling Anger and Learning to Manage it (CALM), and Family Man. Every prisoner attending ETS or CALM during the study was invited to take part, as was every prisoner attending Family Man for the first 4 months of the study<sup>2</sup>. Forty-eight participants were engaged in ETS, 11 in CALM, 4 in Family Man, and 1 participant in both ETS and CALM. A further 65 prisoners were not in or due to enter treatment (in another study, this was the comparison group). These prisoners were recruited from the Education Department, the Welfare to Work project (involving courses for increasing life skills) and the 'hard to motivate/poor copers project' (an in-

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<sup>2</sup> This was only for the first 4 months of the study because the majority of prisoners completed Family Man after having been selected for one of the other programmes, and because of the time-tabling of the course.

house project that aimed to engage those who were poorly motivated, or vulnerable prisoners). Table 2 shows the participant demographics.

Table 2.

Participant information (N = 129).

	Mean value/frequency
Age in years	30.1 (7.4)
Age left full time education	15.3 (1.7)
<b>Nationality</b>	
British	126
Other	3
<b>Ethnicity</b>	
White	117
Other	12
<b>Marital Status</b>	
Single	87
Not Single	42
<b>Employment Status</b>	
Employed	73
Unemployed	56
<b>Index Offence</b>	
Acquisitive	26
Criminal damage/Fire setting	4
Drugs	13
Vehicle	18

Violent	62
Other	6
Age first convicted	18.9 (7.1)
Time in years since first conviction	11.3 (8.0)
Length current sentence (months)	38.2 (41.5)
Time left to serve in months	15.5 (28.8)
No. youth custody sentences	1.8 (2.7)
No. court appearances	25.5 (37.4)
Total no. of convictions	27.7 (37.1)
Total no. of offences	38.4 (58.9)

*Note.* S.D in parentheses.

This chapter constitutes part of a larger study in which a treatment group (N = 64) and a comparison group (N = 65) were selected in order to investigate whether prison treatment affected motivation, and if it can predict change in offending behaviour. With regards the factor analysis, only the pre-treatment data were analysed and participants formed a single sample. This sample consisted of 129 prisoners; 19 prisoners approached declined to participate, 1 participant withdrew from the study after completing all measures at initial assessment and 1 participant did not complete the initial interview for security reasons. In order to ascertain test-retest reliability, 54 participants who completed the PCI:OA at both initial assessment and follow-up (approximately 3 months later) were included in analysis. Data from a subsample of 20 participants in the no treatment comparison group who completed the PCI:OA at both initial assessment and follow-up were



examined separately, because their PCI:OA scores would be least likely to change over time, providing the best test of test-retest reliability.

Demographics for this subsample are shown in Table 3.

Table 3.

Participant information for those participants who completed the PCI:OA at initial assessment and follow-up.

	Treatment group ( <i>N</i> = 34)	Comparison group ( <i>N</i> = 20)	Significance tests
Age in years	30.7 (7.5)	31.0 (5.7)	$U = 318.0, p = .69$
Age left full time education	15.8 (1.6)	14.4 (2.2)	$U = 217.5, p = .02$
Nationality			$X^2_{(1)} = 0.2, p = 1.00^a$
British	33	19	
Other	1	1	
Ethnicity			$X^2_{(1)} = 1.3, p = .35^a$
White	32	17	
Other	2	3	
Marital Status			$X^2_{(1)} = 1.9, p = .23^a$
Single	21	16	
Not Single	13	4	
Employment Status			$X^2_{(1)} = 2.0, p = .13^a$
Employed	22	9	
Unemployed	12	11	
Index Offence			-

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Acquisitive	3	5	
Criminal damage/Fire setting	2	2	
Drugs	4	3	
Vehicle	0	1	
Violent	23	9	
Other	2	0	
Age first convicted	20.1 (7.9)	18.1 (7.8)	U = 243.5, $p = .08$
Time in years since first conviction	10.5 (7.7)	13.5 (6.1)	$t_{(52)} = 1.5, p = .15$
Length current sentence (months)	63.6 (57.6)	41.7 (37.9)	U = 185.5, $p = .21$
Time left to serve in months	33.7 (43.2)	15.4 (19.5)	U = 139.0, $p = .04$
No. youth custody sentences	0.9 (1.7)	2.7 (3.8)	U = 258.0, $p = .10$
No. court appearances	17.0 (20.4)	44.3 (66.7)	U = 232.5, $p = .05$
Total no. of convictions	13.5 (15.9)	36.2 (35.3)	U = 210.0, $p = .02$
Total no. of offences	22.2 (26.2)	48.6 (60.1)	U = 243.5, $p = .12$

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Note S.D in parentheses. <sup>a</sup> Fisher's exact test.

The quantitative data, with the exception of time in years since first conviction, were not normally distributed (according to the Shapiro-Wilk test of normality), and so Mann-Whitney U tests were used to test for the majority of differences between the treatment group and the comparison group. Chi square tests were used for categorical data. (The small number of participants in each group of the 'index offence' category did not allow for testing of differences.) Participants in the treatment group were significantly older when they left full time education, had significantly longer left to serve, and had significantly less convictions, when compared to the comparison group.

## *Measures*

*The Personal Concerns Inventory – Offender Adaptation* (PCI:OA; Sellen, McMurrin, Cox, Theodosi & Klinger, 2006; Appendix 1). This was described in Chapter 3. The life areas of the PCI:OA are: (1) Home and household matters, (2) Employment and finances, (3) Partner, family and relatives, (4) Friends and acquaintances, (5) Love, intimacy and sexual matters, (6) Self-changes (changes that people want to make to themselves), (7) Education and training, (8) Health and medical matters, (9) Substance use, (10) Spiritual matters, (11) Hobbies, pastimes and recreation, (12) My offending behaviour, (13) Current living arrangements, and (14) Any other areas (not previously mentioned). The rating scales of the PCI:OA are: (1) Importance, (2) Likelihood of attainment, (3) Control over achieving goals, (4) Knowledge about how to achieve goals, (5) Happiness at goal attainment, (6) Unhappiness at goal attainment, (7) Commitment to goal attainment, (8) When the goal is to be achieved, (9) Will offending help?, (10) Will offending interfere?, (11) Will prison help?, and (12) Will prison interfere? For the offending scales, there was scope for more than one offence type to be recorded, and these were denoted 'Offending behaviour A' (the index offence) and 'Offending behaviour B', and so on, as required.

There are various ways in which the PCI can be scored. One way is to obtain mean scale scores across all life areas. For example, to work out the mean Importance score, scores on this scale are summed over all life areas and this figure is divided by the number of scores used, equivalent to the number of goals generated. Here, internal consistency and test-retest reliability will be calculated for each scale separately, and only internal

consistency calculated for the whole PCI:OA. As there currently is no way in which to generate a whole PCI:OA score, test-retest reliability was not examined for the whole PCI:OA.

Once the factor structure is known, factor scores are computed by adding positively loaded scores and subtracting negatively loaded scores constituting a particular factor, and dividing by the number of items in the factor. Here, only factor scores from the solution excluding the offending and prison rating scales are tested for internal consistency and test-retest reliability.

#### *Procedure*

The study was approved by HM Prison Service's Area Psychologist for Wales and the Prison Governor. The nature of the study was explained and participants provided written, informed consent upon agreeing to take part (Appendix 2). Confidentiality was assured. The men were interviewed individually in classrooms within the prison's Resettlement Unit. Information was collected on age, level of education, marital status, employment status, index offence, and previous convictions and offences (Appendix 3).

After completing the demographic information the PCI:OA was conducted as an interview. Life areas were introduced, and the meaning of 'concerns' was explained as encompassing both positive and negative issues that participants may want to address in any life area. If the participant had no concerns in a particular life area, the interviewer moved on to the next. Interviews typically took 2 to 3 hours, and at the end of the interview, participants were given the opportunity to ask questions. The PCI:OA

interview was completed again after a mean interval of 101.3 days (S.D = 44.2) after initial interviews. During this second interview, which was also carried out in a classroom in the Resettlement Unit, participants completed only the PCI:OA interview in the same manner as at initial assessment. As there were fewer measures to complete at follow-up, these interviews took between 1 and 2 hours, and again, participants were given the opportunity to ask questions at the end of the interview.

### *Statistical analyses*

An exploratory factor analysis of the scores obtained from PCI:OA rating scales at initial assessment was conducted. This is the first full analysis of the PCI:OA in a forensic sample and the aim was to investigate the factor structure of the PCI:OA and compare this to the original PCI. As it is not known exactly what variables pertaining to motivation might be the most important for this population using this particular measure (Kline, 1994), an exploratory factor analysis (principal component analysis; PCA) was conducted. Initially, a PCA was carried out with only scales that were common to both the PCI and the PCI:OA (i.e. all scales except the scales pertaining to offending and prison). Another factor analysis was conducted; scales pertaining to offending and prison were included in order to examine how the adapted rating scales impact factor structure. Internal consistency of the whole PCI:OA, each individual PCI:OA scale, and the factors derived from the first factor analysis was examined using Cronbach's alpha. Finally, in order to investigate test-retest reliability, correlations for scale scores were calculated using Spearman's rho, as the data were not normally distributed, and factor

score correlations calculated using Pearson's  $r$ ; this data was normally distributed.

## Results

### *Current concerns*

The mean number of current concerns identified by the sample was 7.53 (SD = 4.12; range 1 to 22). These concerns were spread over a mean of 5.84 life areas (SD = 2.49; range 1 to 12), and the mean number of concerns for each life area is presented in Table 4. It can be seen that Employment, Self-changes, and Partner, family and relatives, were the areas in which concerns were most commonly expressed, consistent with earlier findings (see Chapter 3).

### *Factor structure: Principal component analysis (PCA)*

PCA was carried out in order to investigate the motivational structure of offenders according to the PCI:OA. This allowed for comparison of the factor structure of the PCI:OA with that of the original PCI. In order to do this, eight scales were included in analysis and the scales pertaining to offending and prison were omitted. All participants that completed the PCI:OA at initial assessment were included in analysis ( $N = 129$ ). Measures of sampling adequacy indicated that the variables sampled at initial assessment were amenable to factor analysis (Bartlett's Test of Sphericity  $\chi^2 = 315.65$ ,  $p < .0001$ ; Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.70). Cases were excluded pairwise, meaning that only a participant with a missing value in the specific data being analysed was excluded from analysis.

Table 4.

Mean number of concerns in each life area.

Life area	Mean (SD)
Self-changes	1.07 (0.99)
Employment and finances	1.04 (0.70)
Partner, family and relatives	0.95 (0.90)
Education and training	0.74 (0.73)
Home and household matters	0.69 (0.61)
Substance use	0.56 (0.68)
My offending behaviour	0.50 (0.58)
Friends and acquaintances	0.46 (0.60)
Health and medical matters	0.42 (0.68)
Hobbies, pastimes and recreation	0.40 (0.67)
Current living arrangements	0.32 (0.70)
Love, intimacy and sexual matters	0.20 (0.42)
Spiritual matters	0.10 (0.39)
Other areas	0.09 (0.34)

Utilising the Eigenvalue > 1.0 criterion (Kaiser, 1960) and observing the scree test (see Figure 1), two factors were extracted. These factors explained 59.1% of the observed variance. By interpolating factor loading cut-offs used with sample sizes of 100 and 200, the factor loading cut-off for a sample of 129, reported in this chapter, was established as .47 (Stevens, 1992). Therefore, only factor loadings greater than .47 were retained. As suggested by Field (2005), varimax rotation was used initially in the extraction of factors.

However, this did not aid interpretation of the data, and the analysis reported here is unrotated. This is also in line with previous analyses of the PCI (e.g. Cox et al., in preparation).

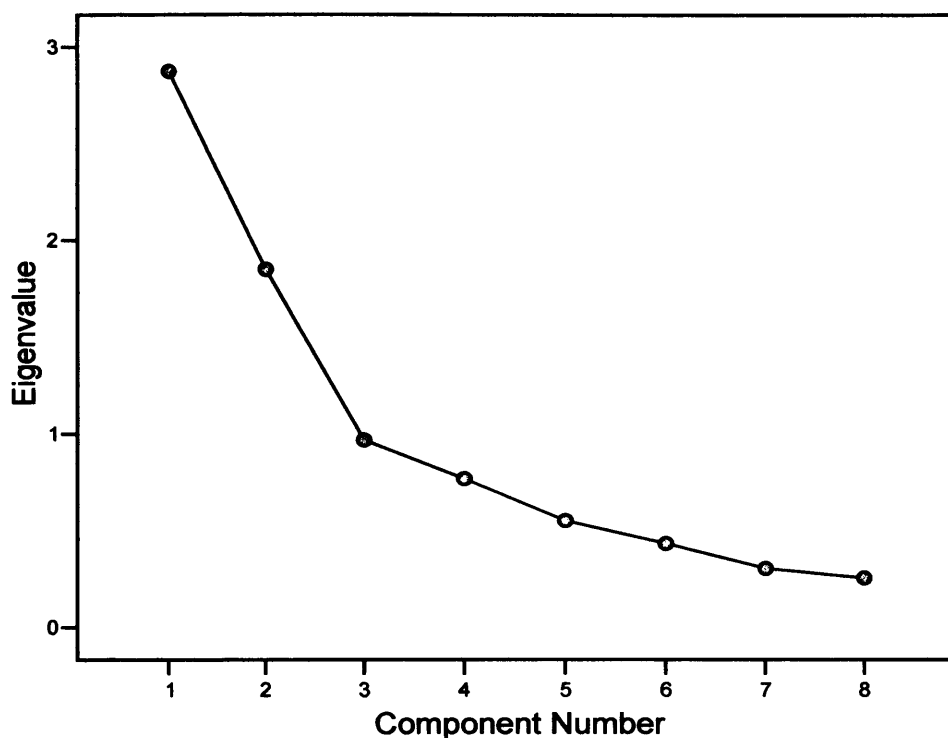


Figure 1. Scree plot for factor analysis with offending and prison rating scales excluded.

The factor structure is shown in Table 5. Note that the scales here are PCI rating scales and therefore slightly different to those in Table 1, which reflect MSQ scales. Commitment is found in both the PCI and MSQ; Likelihood on the PCI is the same as Chances of success from the MSQ; PCI Happiness is equivalent to MSQ Joy; PCI Knowledge is equivalent to MSQ Active Role; Unhappiness is found in both the PCI and MSQ, and PCI When is equivalent to MSQ Goal distance. Control and Importance are found in the PCI only.



Table 5.

Unrotated factor loadings for the PCI:OA; offending and prison scales excluded (N = 129).

	Factor	
	1	2
Commitment	.76	
Likelihood	.75	
Happiness	.64	-.55
Knowledge	.58	
Unhappiness	-.48	
When	-.47	
Control	.54	.70
Importance	.50	-.66
Eigenvalues	2.87	1.85
% variance	35.93	23.13

Factor 1 (8 scales) consisted of positive loadings on Commitment, Likelihood, Happiness, Knowledge, Control, and Importance, and negative loadings on Unhappiness and When. This factor explained 35.93% of the variance. All of the scales in factor 1 above, except Unhappiness, have factor loadings on factor 1 in Cox et al. (in preparation), and loadings are in the same direction. Hosier (2002) found six of the above scales loading on factor 1 in his study (When and Unhappiness are not found in Hosier's (2002) solution). Fadardi (2003) also found positive loadings on factor 1 from Commitment, Likelihood, Happiness, Knowledge and Control. The three

scales with the highest loadings on factor 1 - Commitment, Likelihood, and Happiness - have been cited as the most consistent scales to load on adaptive motivation (Klinger & Cox, 2004b). For these reasons, factor 1 here has been named adaptive motivation.

Factor 2 (3 scales) consisted of a positive loading on Control and negative loadings on Importance and Happiness, and this factor explained 23.13% of the variance. These loadings and their corresponding directions were also found in the maladaptive motivation factor identified by Cox et al. (in preparation). Unlike in the current study, Cox et al. (in preparation) also found that Commitment loaded negatively onto the maladaptive factor, and Knowledge and Unhappiness loaded positively. The difference in terms of the Knowledge scale, at least, could be partly attributable to the difference in the factor loading cut-off used (.35). Cox et al. (2002) also found a negative loading on the maladaptive factor from the MSQ Happiness scale, although a loading on the Likelihood scale (either positive – MSQ; Cox, Blount, Bair & Hosier, 2000 – or negative – PCI; Hosier, 2002) was not replicated here. Hosier (2002) found that PCI scales Control and Knowledge loaded negatively onto the maladaptive factor, another finding that is not replicated here, and in contrast to the findings for these scales in Cox et al. (in preparation). Although there are some differences, given the similarity of these results to the factor obtained here, factor 2 was named maladaptive motivation.

In order to investigate how the amended PCI rating scales affected factor structure, PCA was carried out again with the scales pertaining to offending and prison included. All participants that completed the PCI:OA at initial assessment were included in analysis ( $N = 129$ ). Upon inspection of

sampling adequacy, Offending interferes and Prison interferes failed to reach the adequacy cut-off of .5 (.470 and .476 respectively), which meant they were not suitable for factor analysis because they were too multi-collinear. For this reason, they were omitted from the factor analysis to leave 10 variables. Measures of sampling adequacy indicated that the remaining variables were amenable to factor analysis (Bartlett's Test of Sphericity  $\chi^2 = 385.26$ ,  $p < .0001$ ; Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.72). Again, cases were excluded pairwise and only factor loadings greater than .47 were retained. As in the previous analysis, varimax rotation was used initially in the extraction of factors. However, this did not aid interpretation of the data, and the analysis reported here is unrotated. Utilising the Eigenvalue > 1.0 criterion (Kaiser, 1960) and observing the scree test (see Figure 2), three factors were extracted, shown in Table 6.

In essence, this factor analysis yields a very similar solution to that including only the original PCI scales. However, the addition of the offending and prison rating scales has meant that in order to maximise the variance accounted for in the solution, a three factor model, rather than a two factor model, is appropriate. Unhappiness and When do not appear in the table because they did not load on any of the factors in the solution.

The three factors explained 64.74% of the observed variance. Factor 1 accounted for 32.19% of the variance and consisted of 6 scales. There were positive loadings on Commitment, Likelihood, Happiness, Control, Importance, and Prison helps. Factor 2 (3 scales) on the other hand, had only one positive loading, on Control. There were two negative loadings on Importance and Happiness, and overall this factor accounted for 18.72% of

the variance. Factor 3 (3 scales) had a positive loading on Prison helps and Offending helps, and a negative loading on Knowledge. Again, factor 1 is very similar to that of Cox et al. (in preparation), and Fadardi (in preparation). As in the two factor solution, the three scales with the highest loadings on factor 1 were Commitment, Likelihood, and Happiness. The only differences between factor 1 in the two- and three factor solution is that Knowledge, Unhappiness and When do not feature in factor 1 of the three factor solution, and Prison helps does. Because of its resemblance to factor 1 in the two factor solution, factor 1 here has been called adaptive motivation.

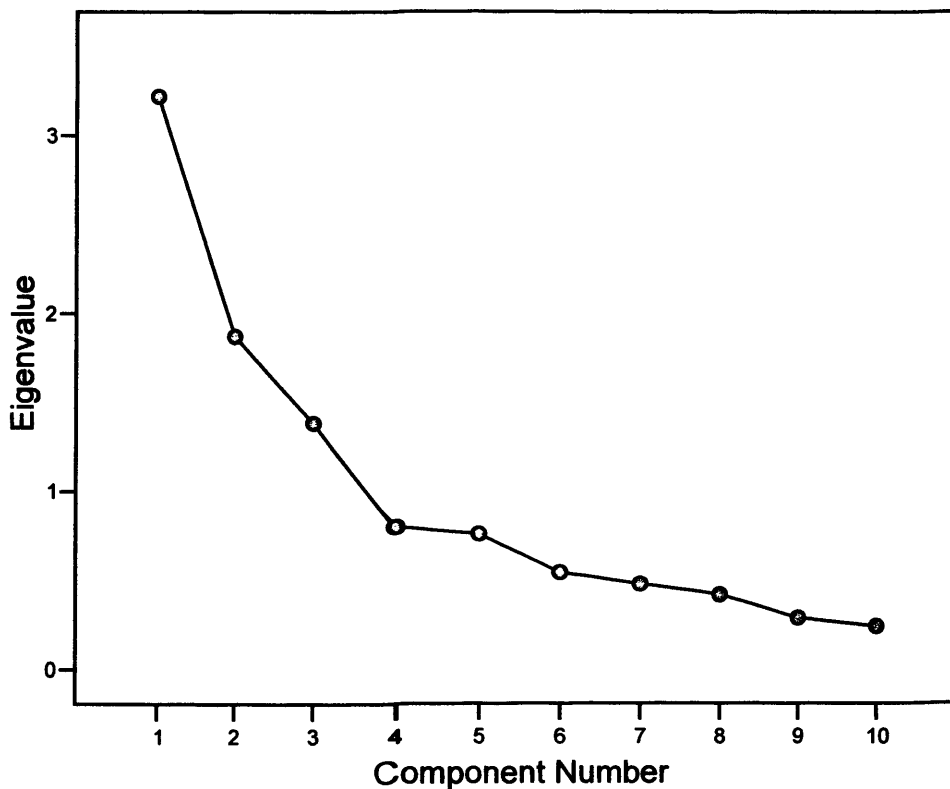


Figure 2. Scree plot for factor analysis with offending and prison rating scales included.

Table 6.

Unrotated factor loadings for the PCI:OA: Offending interferes and Prison interferes scales excluded ( $N = 129$ ).

	Factor		
	1	2	3
Commitment	.77		
Likelihood	.74		
Happiness	.59	-.55	
Control	.56	.70	
Importance	.53	-.65	
Knowledge			-.66
Prison Helps	.57		.60
Offending Helps			.55
Eigenvalues	3.22	1.87	1.38
% variance	32.19	18.72	13.84

The second factor is exactly the same as the second factor in the two factor solution, and for reasons described earlier has been called maladaptive motivation. The offending and prison scales retained in the PCA loaded on their own factor, in addition to Knowledge. This factor describes offending and prison as helping to achieve goal achievement, but participants do not know what to do to achieve their goals. This factor could simply be named 'Knowing how to achieve goals'.

## *Reliability*

*Internal consistency.* Cronbach's alpha was calculated from PCI:OA data at initial assessment. It was calculated for: a) the whole inventory (all the mean scale scores entered into analysis), and b) the individual rating scales of the PCI:OA. Prior to calculating internal consistency, two rating scales were reversed: When and Unhappiness. This is because high values on these scales represent an unfavourable outcome, whereas the remaining PCI:OA scales are scored such that a high score is more desirable than a low score. Although this is unimportant for analysis of single scales, it is important that all scales are scored in the same direction for analysis of internal consistency of the whole PCI:OA. Standardised alpha is the value of alpha when all scales items have been standardised to have equal means and variance. Given that this was not the case in the data the value of non-standardised alpha was used in establishing internal consistency.

*Whole PCI:OA internal consistency:* Mean scale scores were calculated for the whole sample, which were then entered into analysis such that each mean scale score was equivalent to an 'item'. These were subject to analysis with listwise deletion, whereby a participant is excluded from analysis if they have missing data for any variable, leaving a total sample of 125. Cronbach's alpha was .72, which is above the .70 cut off for consistency (Kline, 1993). Removing any of the scales from the analysis did not increase the reliability of the measure. Thus, the original PCI rating scales made for a consistent measure of general motivation structure in an offender sample.

*Scale internal consistency:* Cronbach's alpha for each of the PCI:OA scales was calculated. Cronbach's alpha analysis requires that all participants



respond to all items, meaning that complete data sets are needed (i.e. there can be no missing values, so every participant has to have the same number of concerns entered into the analysis). Klinger & Cox (2004b) comment that it is important to maximise the number of goals included in analysis as well as the number of participants. The number of goals identified in the current study ranged from 1 to 22, and only those participants who identified at least six goals were included in this analysis. Consequently, data were available from approximately two thirds (64.3%) of the total sample (listwise deletion, N = 83). For Offending helps and Offending interferes, Cronbach's alpha was calculated from Offending behaviour A on the PCI:OA, as this reflected the index offence. As shown in Table 7, two scales - When and Offending interferes - reached reliable levels for the whole sample, with Offending helps just failing to reach an acceptable level.

*Factor internal consistency.* The adaptive factor was reliable for the whole sample, with Cronbach's alpha of .72. Removing scales from the analysis did not increase the reliability of the measure. Internal consistency of the maladaptive factor for the whole sample was low at .26. The removal of Control would have increased internal consistency substantially (to make the scale reliable), but there was no justifiable reason for doing this. Even though prisoners are not always in control of their circumstances in prison, concerns were not only related to prison issues where control is limited, hence the decision not to omit this scale from further analyses.

Table 7.

Cronbach's alpha for PCI:OA rating scales.

Scale	Cronbach's alpha ( <i>N</i> = 83)
Importance	.45
Likelihood	.62
Control	.53
Knowledge	.57
Happiness	.49
Unhappiness	.50
Commitment	.30
When will it happen	<b>.73</b>
Offending helps	.68
Offending interferes	<b>.75</b>
Prison helps	.54
Prison interferes	.64

*Note.* Figures in bold indicate reliable scales.

*Scale test-retest reliability:* Spearman's rho correlations were carried out and test-retest correlations of scale scores are shown in Table 8. In terms of the whole sample, 10 of the 12 rating scales were significantly correlated; only Knowledge and Prison helps test-retest correlations failed to reach significance.



Table 8.

Test-retest correlations for PCI:OA rating scales.

Scale	Whole group ( <i>N</i> = 54)	Comparison group ( <i>N</i> = 20)
Importance	.52 **	.32
Likelihood	.48 **	.28
Control	.42 **	.48*
Knowledge	.24	-.03
Happiness	.42 **	.26
Unhappiness	.48 **	.56**
Commitment	.55 **	.37
When	.37 **	.17
Offending help	.32 *	.21
Offending interfere	.50 **	.45*
Prison help	.26	.31
Prison interfere	.44 **	.35

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

However, as the treatment group received treatment ( $N = 64$  at initial assessment,  $N = 34$  at follow-up), they were omitted from further analysis, as it would be anticipated that scale scores would change as a result of treatment. Looking only at those participants who were in the comparison group ( $N = 20$ ), three of the test-retest correlations were significant: Control, Unhappiness and Offending interferes. However, none of the scales reached the reliability cut off of .70.

*Factor test-retest reliability:* Pearson's correlations were conducted on factor scores (from the two factor solution) obtained at initial assessment and follow-up for the 54 participants who completed the PCI:OA at both times. As can be seen from Table 9, test-retest correlations for both adaptive motivation and maladaptive motivation were significant, although neither reach the conventional cut-off for significance.

Table 9.

Test-retest correlations for factor scores.

	Whole group (N = 54)	Comparison group (N = 20)
Adaptive	.41*	.02
Maladaptive	.44**	.41

*Note.* \*  $p < .01$ ; \*\*  $p < .001$ .

However, as the treatment group received treatment ( $N = 64$  at initial assessment,  $N = 34$  at follow-up), they were omitted from further analysis, as it would be anticipated that scale scores would change as a result of treatment. Looking only at those participants who were originally in the comparison group ( $N = 20$ ), neither test-retest correlation was significant. Compared to maladaptive motivation (.41), the adaptive motivation test-retest correlation was low (.02).

## Discussion

Corroborating the findings from Chapter 3, the three life areas most commonly endorsed were Self-changes, Employment and finances, and Partner, family and relatives. On average, participants generated seven concerns, although this ranged from 1 to 22. Further study could investigate how different groups compare. Man, Stuchlíková and Klinger (1998) found that the treatment group (28 people who were alcohol dependent admitted to hospital) generated approximately 40% less goals than their comparison group counterparts (30 university students matched for demographic variables), and such differences could inform about motivation to change offending.

Satisfactory construct validity for the PCI:OA has been demonstrated in this sample of 129 incarcerated offenders. The factor analysis yielded a solution with a similar factor structure to that found in the original PCI. Excluding the offending and prison scales from the PCA, a two factor solution closely matching previous studies (e.g. Cox et al., in preparation) was identified. For this reason, the factors were named adaptive and maladaptive motivation. For example, all of the scales in adaptive motivation found in this study, except Unhappiness, have factor loadings on Factor 1 in Cox et al. (in preparation), and loadings are in the same direction. Hosier (2002) found six of the eight scales loading on adaptive motivation here, in his study (When and Unhappiness are not found in Hosier's (2002) solution). Control, Importance and Happiness loaded on maladaptive motivation in this analysis and were also found in Factor 2, maladaptive motivation, of Cox et al. (in preparation), in identical directions. Unlike in the current study, Cox et al., (in

preparation) also found that Commitment loaded negatively onto the maladaptive factor, and Knowledge and Unhappiness loaded positively. The adaptive factor is more consistent between studies than the maladaptive factor (Klinger & Cox, 2004b), and the results here suggest the same. Commitment, Likelihood and Happiness rating scales, like in other studies of the PCI, had the highest loadings on adaptive motivation, providing support for the idea that these are the most robust scales on the adaptive motivation factor.

The results presented here also suggest that the maladaptive factor is less robust, evidenced by a slightly different factor structure to those in previous studies. However, this could be partially due to the small number of items constituting the maladaptive motivation factor in this sample. Although the PCI and PCI:OA yield very similar results from factor analysis, how this relates to treatment outcome needs to be considered.

Upon inclusion of the offending and prison scales (of which only the Offending helps scale and the Prison helps scale were amenable to factor analysis), a three factor solution best fit the data. Factor 1 was named adaptive motivation in this factor analysis also, as the only difference between the two solutions was that Unhappiness and When no longer loaded on factor 1, and Knowledge was better accounted for in factor 3 of the second factor analysis. The second factor in this solution is exactly the same as the second factor in the two factor solution, hence named maladaptive motivation. The offending and prison scales retained in the PCA loaded on their own factor, in addition to Knowledge; this was named 'Knowing how to achieve goals'. In previous studies, Alcohol interferes loaded positively on the second,

maladaptive factor, and the Alcohol Helps scale did not load on either factor (Cox et al., in preparation; Hosier, 2002). Although studies detailing how the problem behaviour scales impact factor structure are few, the findings of Cox and colleagues are contrary to findings reported here, where a three factor solution best fit the data rather than a two factor solution. It is not possible to directly compare the Offending interferes scale to the Alcohol interferes scale as it was not suitable to analysis. These differences may have arisen for two reasons. In Cox et al's study (in preparation), a mixed sample of community residents and students was selected, whereas participants in this study were drawn from the same environment. Secondly, Hosier (2002) used an abridged PCI consisting of only five life areas where participants only recorded the most important concern in each life area, whereas participants in this study generated as many concerns as they desired in all life areas. It is possible that these differences account for the difference in factor structure. It is also possible that offending is better conceptualised with a three factor structure upon which the problem behaviour scales load. This requires further study.

The internal consistency of the whole PCI:OA was acceptable, as expected. However, the same was not true of the rating scales; When and Offending interferes were the only scales that were internally consistent. This was most likely the case because most prisoners felt they couldn't achieve goals until they left prison, and offending consistently interfered with achieving life goals. It is also worth noting here that the number of concerns was restricted to six, a trade-off between maximising the number of concerns and number of participants in analysis. Restricting the number of current concerns included in the analysis can affect internal consistency. For example,

considering the Importance scale, there could be a mix of more and less important goals listed in the first six concerns. However, if all the concerns listed beyond the first six are much more important, just using the first six concerns will not be an accurate representation of internal consistency (Klinger & Cox, 2004b). In addition, the life area in which concerns are identified can affect their achievability; those goals that can be completed in prison may be more likely to be in a life area such as My offending behaviour, or Education and training. Therefore, investigating internal consistency by restricting the number of concerns may be misleading.

In terms of factor internal consistency, the adaptive factor is more internally consistent than the maladaptive factor which supports previous work. The less internally consistent maladaptive motivation factor may also be a function of the small number of items loading on it.

Commitment, Happiness and Likelihood are the most stable scales (Klinger & Cox, 2004b), and had moderate test-retest correlations for the whole sample in this study. The comparison group demonstrated low correlations on these scales. As suggested by Klinger and Cox (2004b), those scales with lower test-retest reliabilities may reflect motivational components, although it is important to note that this group received no intervention. The number of participants in this group was very small and may have contributed to this result. It could also reflect the possibility that the PCI:OA altered motivation through its administration, although this is unlikely because whole sample correlations were good. Therefore, these low correlations may reflect the comparison group comprising of participants more impulsive and less intelligent, meaning less accuracy in their responses; this would be a function

of not being selected for treatment. Although this research did not impact the treatment group's progression through the prison system, there may still have been an element of response-bias present in this group, in that this group would want to appear motivated and consistent in responses, hence skewing the whole sample correlations. This is, at present, an unfounded claim and would require these factors to be measured in future studies.

Looking at whole group test-retest for factor scores, both the adaptive and maladaptive factor produced significant test-retest correlations. However, neither was significant for the comparison group only, and the adaptive motivation correlation was substantially lower than the maladaptive motivation correlation. This may well be attributable to the small number of participants, although it is also possible that the administration of the PCI:OA changed participants' views, leading to a reduction in test-retest reliability (scale scores suggest otherwise, however).

Despite some values of internal consistency and test-retest reliability not reaching acceptable levels in this study, Klinger and Cox report equivalent, and in some cases, lower values of reliability on the MSQ and PCI than found in this chapter, but still consider the MSQ and PCI reliable (Klinger & Cox, 2004b). Extrapolating this to the findings here the PCI:OA can be viewed as a reliable measure of offenders' motivation to change. However, it remains the case that the results here do not reach conventional levels of internal consistency and reliability, and acceptable reliability can not be assumed. It is important to note that motivation is a dynamic construct (McMurrin, 2002), and is specific to goals and individuals (Klinger & Cox, 2004a); perfect internal consistency and test-retest reliability would not be

expected for this very reason. In fact, it is arguable whether it is possible to measure test-retest reliability of a measure of motivation.

Despite the small numbers in some of the analyses (a result of working with a sample that has a high population turnover), the validity of the PCI:OA, and to an extent the reliability have been established. Replication studies would be of benefit in examining the PCI:OA as a motivation measure. In addition, stability of goal content could be considered so as to inform reliability; are the same goals generated at initial assessment and follow-up? Future work also needs to focus on other forms of validity, such as the concurrent and predictive validity of the PCI:OA.



## Chapter 5

### Concurrent validity of the PCI:OA<sup>1</sup>.

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#### Summary

In this chapter, the concurrent validity of the PCI:OA is examined through its relationship with other measures. Two measures purported to measure motivation are used to test for concurrent validity. The University of Rhode Island Change Assessment (URICA; McConaughy, Prochaska & Velicer, 1983) and the Treatment Motivation Questionnaire (TMQ; Ryan, Plant & O'Malley, 1995) were administered to 129 and 64 male prisoners, respectively, alongside the PCI:OA. In addition, staff ratings of motivation to change and engage in treatment are used as a further concurrent measure (N = 64). PCI:OA adaptive motivation correlated significantly, and positively, with the URICA Committed Action composite score. The TMQ and URICA subscales, and the staff composite score did not correlate with adaptive motivation. Maladaptive motivation did not correlate with any of the TMQ or URICA scales, or the staff composite score. The RCI of the PCI:OA did not significantly correlate with any of the TMQ or URICA subscales, or the staff composite score. Assessing individual staff ratings as opposed to the staff composite score, the adaptive motivation factor was significantly, and positively, correlated with staff ratings of motivation for therapy and

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<sup>1</sup> Some of this chapter forms part of a paper in preparation: Sellen, J. L., McMurrin, M., Theodosi, E., Cox, W. M., & Klinger E. Establishing the reliability and validity of the Personal Concerns Inventory: Offender Adaptation (PCI: OA) with adult male prisoners. The remaining parts have been published as: McMurrin, M., Theodosi, E., & Sellen, J. (2006). Measuring engagement in therapy and motivation to change in adult prisoners: A brief report. *Criminal Behaviour & Mental Health*, 16, 124-129.

punctuality for therapy sessions. The maladaptive motivation factor was significantly, and positively, correlated with staff rating of compliance with the current programme. Looking only at the ability of the URICA, TMQ, and staff ratings to tap offenders' motivation, significant positive change post-treatment was evident on Committed Action of the URICA and the Confidence in Treatment scale of the TMQ. The three URICA composite scores correlated significantly and *negatively* with the staff composite score. Of the TMQ scales, only Confidence in Treatment correlated significantly with the staff composite score and this was in a positive direction. Overall, only the Confidence in Treatment scale of the TMQ provided consistent evidence of motivation for therapy and motivation to change. Minimal concurrent validity is reported, and the problem of using measures with different theoretical underpinnings to test for concurrent validity is highlighted, compounded by the apparent inability of the URICA, TMQ and staff ratings to tap offenders' motivation to change. Testing of other types of validity is suggested.

## Introduction

Construct validity of the PCI:OA has been reported in the previous chapter. However, another type of validity is that of concurrent validity, a term sometimes used interchangeably with convergent validity. Here, the definition of concurrent validity used is: the extent to which the scores from one measure correlate with another measure that assesses the same construct. However, previous chapters have detailed the lack of valid and reliable measures of offenders' motivation to change, so what measures may be used to examine concurrent validity?

One measure that is used frequently in forensic settings is the University of Rhode Island Change Assessment (URICA; also known as the Stages of Change Questionnaire). This is based on the Transtheoretical Model of change (TTM; Prochaska & DiClemente, 1983) which has four elements to it: Stages of change, Processes of change, Decisional balance, and Self-efficacy. The facet of interest here is that of the stages of change, a model that focuses on behaviour change through a series of stages, and upon which the URICA is based. The stages of change model has undergone many alterations since its development in the early 80s; initially it was seen as a four stage model consisting of Precontemplation, Contemplation, Action and Maintenance, but more recently it has been conceptualised as a five stage model, with a Preparation stage added between the Contemplation and Action stages (Prochaska, DiClemente & Norcross, 1992). The model states that in order to change behaviour, the stages of change must be progressed; the stages are explained in more detail in Table 1. The stages are not postulated to be linear, but instead circular. It is possible to cycle repeatedly through the

Precontemplation, Contemplation, Preparation and Action stages before Maintenance is achieved. As such, there is no set time frame within which the stages are to be completed (DiClemente & Hughes, 1990).

Table 1.

Stages of change.

Stage	Description
Precontemplation (P)	Lack of recognition of either the problem or that one needs to change.
Contemplation (C)	Identification of problem and/or the need for change, but experiencing ambivalence or lack of understanding about change.
Preparation (PA)	Combination of intention to change with initial modifications in overt behaviour.
Action (A)	Whereby active attempts to change are taking place.
Maintenance (M)	Maintaining changes that have already been made.

*Note.* Taken from Prochaska et al., 1992.

As mentioned earlier, the stages of change theory is frequently cited as a model of motivation in forensic settings (for example, see Clarke, Simmonds & Wydall, 2004 and Haslewood-Pocsik, Merone & Roberts, 2004), and appears to be the gold standard in measuring motivation to change. Given this, it was selected as a concurrent measure of motivation to change.

The Treatment Motivation Questionnaire (TMQ) was selected as another concurrent measure. The TMQ was developed from Self-

determination theory (SDT; Deci & Ryan, 1985), a goal-oriented theory about human motivation and needs (Deci & Ryan, 1985). The focus of the TMQ is on the extent to which change is self-determined (intrinsic) or externally imposed. Ryan and Connell (1989) report a graded Perceived Locus of Causality (PLOC) model, a phenomenon that can be used to explain why people pursue certain behaviours, underpinning SDT. These authors describe perceived locus of causality as a continuum: *external* reasons are when behaviour is carried out due to an external event or person; *introjected* reasons are those that are esteem-based; behaviours are acted out in accordance with internal desires, but for approval (either self or public), or to overcome anxiety or guilt; *identified* reasons are those whereby a person is motivated because the behaviour fits in with personal values and goals; *intrinsic* reasons are whereby behaviour is carried out because it is enjoyable in its own right. Clearly, this end of the continuum represents self-determined behaviour. The assumptions of the model are that humans: (1) are active, as opposed to passive; (2) are biologically inclined towards growth and development; and (3) have basic universal psychological needs that are the same independent of culture, gender and so on (Deci & Ryan, 2000). Three psychological needs must be met in order for goals to be successfully achieved: (1) autonomy, the extent to which a person feels they have a choice; (2) competence, the extent to which a person feels that they can achieve goals; and (3) relatedness, the extent to which an individual receives social support (Deci & Ryan, 2000). The TMQ, which is based upon SDT, was designed to measure motivation to enter treatment and predict treatment completion (Ryan et al., 1995), although it accounts for a limited amount of

variance. Ryan et al. (1995), however, acknowledge that many factors influence treatment performance, and the TMQ is designed to tap preliminary motivation levels. Given its promising results thus far, this was also used as a concurrent measure.

The final concurrent measure was that of staff ratings. Staff assessments are used frequently in the prison service and staff have an impact on whether prisoners are selected for treatment, remain in treatment, and achieve treatment goals. The aim of this chapter, therefore, is to investigate the concurrent validity of the PCI:OA, by using the URICA, TMQ and staff ratings as measures of concurrent validity. The final part of this chapter investigates the utility of the URICA, TMQ, and staff ratings in assessing offenders' motivation to change.

## Method

### *Participants*

Participants were 129 convicted adult males in a UK prison, of which 64 prisoners were due to start a prison treatment programme, or had been on such a programme for no more than 2 weeks (in another study this was the treatment group, and here some analyses are completed using just this subsample). The treatment programmes included Enhanced Thinking Skills (ETS), Controlling Anger and Learning to Manage it (CALM), and Family Man. Every prisoner attending ETS or CALM during the study was invited to take part, as was every prisoner attending Family Man for the first 4 months of the

study<sup>2</sup>. Forty-eight participants were engaged in ETS, 11 in CALM, 4 in Family Man, and 1 participant in both ETS and CALM. A further 65 prisoners were not in or due to enter treatment (in another study, this was the comparison group but here this subsample was not analysed separately). These prisoners were recruited from the Education Department, the Welfare to Work project (involving courses for increasing life skills) and the 'hard to motivate/poor copers project' (an in-house project that aimed to engage those who were poorly motivated, or vulnerable prisoners). Table 2 shows the participant demographics for the whole sample and, separately, the treatment group.

Table 2.

Participant information (N = 129).

	Mean value or frequency	Treatment group (N = 64)
Age in years	30.1 (7.4)	30.2 (7.4)
Age left full time education	15.3 (1.7)	15.7 (1.6)
<b>Nationality</b>		
British	126	62
Other	3	2
<b>Ethnicity</b>		
White	117	61
Other	12	3
<b>Marital Status</b>		

<sup>2</sup> This was only for the first 4 months of the study because the majority of prisoners completed Family Man after having been selected for one of the other programmes, and because of the time-tabling of the course.

Single	87	43
Not Single	42	21
<b>Employment Status</b>		
Employed	73	46
Unemployed	56	18
<b>Index Offence</b>		
Acquisitive	26	9
Criminal damage/Fire setting	4	2
Drugs	13	6
Vehicle	18	2
Violent	62	43
Other	6	2
Age first convicted	18.9 (7.1)	19.5 (7.1)
Time in years since first conviction	11.3 (8.0)	10.6 (8.7)
Length current sentence (months)	38.2 (41.5)	51.8 (47.3)
Time left to serve in months	15.5 (28.8)	23.4 (35.7)
No. youth custody sentences	1.8 (2.7)	1.2 (2.3)
No. court appearances	25.5 (37.4)	15.1 (16.9)
Total no. of convictions	27.7 (37.1)	17.5 (27.3)
Total no. of offences	38.4 (58.9)	22.3 (32.0)

*Note.* S.D in parentheses.

This chapter constitutes part of a larger study in which a treatment group (N = 64) and a comparison group (N = 65) were selected in order to investigate whether prison treatment affected motivation, and if it can predict



change in offending behaviour. With regards correlations between the PCI:OA factors and the URICA, only the pre-treatment data were analysed and participants formed a single sample. This sample consisted of 129 prisoners; 19 prisoners approached declined to participate, all of whom were potential treatment group participants. One participant from the comparison group withdrew from the study after completing all measures at initial assessment and 1 participant from the treatment group did not complete the initial interview for security reasons. In order to perform correlations between the PCI:OA factors and the TMQ and staff ratings, 64 participants who completed treatment were included in analysis. Data from a subsample of 35 treatment group participants who completed the URICA and TMQ at both initial assessment and follow-up were examined separately, in order to examine the ability of the URICA, TMQ and staff ratings to tap offenders' motivation. Five treatment group participants refused to be interviewed at follow-up and follow-up was not advised for another participant from the treatment group for security reasons. The mean age of this subgroup of participants was 30.46 years, S.D = 7.45. Most were in two accredited programmes - Enhanced Thinking Skills (ETS; N=26) and Controlling Anger and Learning to Manage It (CALM; N=7), with 2 participants in an unaccredited programme - Family Man.

### **Measures**

#### ***The Personal Concerns Inventory – Offender Adaptation (PCI:OA).***

This was described fully in Chapter 4, and will not be repeated here. To clarify, factor scores are computed by adding positively loaded scores and subtracting negatively loaded scores constituting a particular factor, and

dividing by the number of items in the factor. The Readiness to Commit Index (RCI) was also computed and W. M. Cox and E. Klinger's formula was used: Commitment -  $\sqrt{(\text{Value} * \text{Expectancy})}$ , where Value equals the score on the Happiness scale minus that of the Unhappiness scale, and Expectancy is equivalent to the score obtained on the Likelihood scale (personal communication, 21 March, 2005). Value\*Expectancy is a representation of commitment based on subjective expected utility (SEU) theory (Edwards, 1961), and this is subtracted from the level of commitment reported by the participant to ascertain whether a particular participant is over- or undercommitted relative to what would be predicted by SEU theory. SEU is recognised in TCC as the process which determines which goal one will pursue, and SEU states that the decision to pursue a particular activity is a trade-off between its utility (the extent to which the activity is in one's best interests), and the probability of that activity happening, or being achieved (Manktelow, 1999). A positive RCI indicates that the person is overcommitted to goal pursuits relative to the predicted value, whereas a negative RCI indicates that the person is undercommitted to goal pursuits relative to the predicted value.

*University of Rhode Island Change Assessment (URICA;*

McConnaughy et al., 1983; Appendix 4). The URICA is a measure of stage of change in psychotherapy, and is used here as an indicator of motivation to change. The URICA is a 32-item questionnaire, eight items measuring each of the four stages proposed in the original Stages of Change model (DiClemente & Prochaska, 1982; Prochaska & DiClemente, 1983). Items are rated by participants on a 5-point scale from strongly disagree (1) to strongly agree (5).

Items ask about 'my problem', which participants are asked to name after completing the questionnaire. Cronbach's alpha for each of the scales is good: P .88; C .88; A .89 and M .88 and information for the PA scale was not available (McConnaughy et al., 1983). The URICA shows reasonable test-retest reliability with forensic psychiatric patients with personality disorder, and test-retest correlations were: P .50,  $p = .01$ ; C .69,  $p < .001$ ; A .52,  $p = .007$ ; M .74,  $p < .001$  (McMurrin et al., 1998). Hemphill and Howell (2000) found evidence for the URICA's validity by comparing the URICA interscale correlations from their sample of adolescent offenders with interscale correlations from psychotherapy participants in McConnaughy, DiClemente, Prochaska and Velicer's (1989) study. The correlations between scales were in the same direction in both samples, but larger in Hemphill and Howell's (2000) study. These same authors did, however, find that the data fit a three factor solution better than a four factor solution.

There are a number of ways of scoring the URICA. Items can be summed to give scores ranging from 8-40 on each subscale (Dozois, Westra, Collins, Fung & Garry, 2004; Edens & Willoughby, 2000; McConnaughy et al., 1983; Willoughby & Edens, 1996) or an average subscale score can be calculated (Chou, Chan & Tsang, 2004; Hasler, Delsignore, Milos, Buddeberg & Schnyder, 2004). There are also various composite scores that can be used to score the URICA. The *Readiness to Change composite* is the sum of the Contemplation, Action and Maintenance scores, minus the Precontemplation sum ( $C + A + M - PC$ ; Project MATCH Group, 1997). The rationale behind such a score is that all information contained within scale scores is accounted for when deciding readiness for change (Amodei & Lamb, 2004). Carey,

Pumine, Maisto and Carey (1999) and Stephens, Celluci and Gregory (2004) advocate the use of a continuous measure of readiness. However, it should be noted that the composite score does not have good predictive validity (Blanchard, Morgenstern, Morgan, Labouvie & Bux, 2003).

The *Committed Action* composite is a relatively new composite, described by Pantaloni, Nich, Frankforter and Carroll (2002). It is defined as the score obtained on the Action scale minus that obtained on the Contemplation scale. The rationale behind this composite score is that Action scores will reflect the extent to which an individual is motivated to change, whereas the Contemplation score is likely to be indicative of possible reasons to be unmotivated (doubts and hopes; Pantaloni et al., 2002). Despite this explanation, it should be borne in mind that information from all the scales is not included, and important information from other scales may be missed.

The final composite has been named here as the '*Italian Composite*' (it is not named in the literature). Scaglia et al. (1995) utilised an Italian questionnaire very similar to the URICA, and developed a composite score with which to evaluate motivation. The composite score was given as the sum of the Action and Maintenance scales minus the sum of the Precontemplation and Contemplation scales:  $(A + M) - (P + C)$ .

*Treatment Motivation Questionnaire* (TMQ; Ryan et al., 1995; Appendix 5). The TMQ, which measures treatment motivation, is a 26-item self-report questionnaire on which respondents rate how strongly items apply to them on a 7-point scale from 1 (not at all true) to 7 (very true). As outlined in the introduction, the TMQ is based on SDT. The original TMQ was based upon three types of motivation from SDT (internal, introjected and external), and

also incorporated items related to interpersonal help-seeking and confidence in treatment. One hundred and nine participants in an outpatient programme for alcohol treatment were administered the TMQ. A principal component analysis was used to ascertain the factor structure of the TMQ and using a factor loading cut-off point of .50 yielded a four factor solution. The internal and introjected items were indistinguishable upon factor analysis, but there were still two distinct categories of motivation; internal motivation (which included internal and introjection items) and external motivation. The four subscales of the TMQ are: Internal Motivation (11 items), External Motivation (4 items), Interpersonal Help Seeking (6 items) and Confidence in Treatment (5 items). Reliability of scales generated from 207 alcohol-dependent participants is reported to range from .70 to .98 (Ryan et al., 1995). Providing support for concurrent validity and predictive validity, those participants who demonstrate higher levels of intrinsic motivation as measured by both the TMQ and clinician ratings (concurrent validity) were less likely to drop out of treatment and more likely to show better treatment outcomes (predictive validity; Ryan et al., 1995). In a sample of 74 participants in a methadone maintenance programme, internal or self-determined motivation was associated with better attendance at support services, fewer positive tests for the presence of drugs, and achieving take-out doses sooner, again evidence of predictive validity (Zeldman, Ryan & Fiscella, 2004). Self-determination theory also posits that 'autonomy supportive' staff and/or treatment environments are conducive for remaining in treatment and internalising goals. This hypothesis has been supported empirically (Zeldman et al., 2004).

Subscale scores were used to score the TMQ and the range of scores for each scale is: Internal Motivation - score range 11 to 77, External Motivation - score range 4 to 28, Interpersonal Help Seeking - score range 6 to 42, and Confidence in Treatment - score range 5 to 35. There is no information in the literature about composite scores, and it is not logical to formulate such a composite score. Therefore scores were calculated by simply summing subscale scores.

*Staff assessment of participants' motivation to change (Appendix 6).*

Programme facilitators who had worked with the participant were asked to rate the participant's motivation for treatment on a scale of 0-100%. The stages of change were described and staff were asked to choose the stage most closely describing their participant's current position. Internal and external motivation was described and staff asked to rate on scales of 0-100% how they thought each applied to their participant's situation. The final question asked staff to rate the participant on percentage engagement (participation within treatment sessions), compliance (completion of homework tasks and similar activities), punctuality, and attendance. A composite score of engagement in therapy was used here, in addition to individual rating scales. Staff rated each participant at the end of therapy and intercorrelations of three of the staff ratings of engagement and motivation - motivation for therapy, compliance with the current programme and engagement with current programme - were all highly significant:  $r_s = .70 - .76, p < .001$ . Thus, a mean score (74.56; S.D = 18.46) of these three ratings was adopted as the staff composite score of engagement in therapy.

## *Procedure*

The study was approved by HM Prison Service's Area Psychologist for Wales and the Prison Governor. The nature of the study was explained and participants provided written, informed consent upon agreeing to take part. Confidentiality was assured. The men were interviewed individually in classrooms within the prison's Resettlement Unit. Information was collected on age, level of education, marital status, employment status, index offence, and previous convictions and offences.

After completing the demographic information, participants completed the URICA, and those people in the treatment group only were also asked to complete the TMQ (this questionnaire pertains to treatment motivation). The PCI:OA was then conducted as an interview. Life areas were introduced, and the meaning of 'concerns' was explained as encompassing both positive and negative issues that participants may want to address in any life area. If the participant had no concerns in a particular life area, the interviewer moved on to the next. Interviews typically took 2 to 3 hours, and at the end of the interview, participants were given the opportunity to ask questions. Staff ratings of motivation to change and motivation to enter treatment were taken from one of the facilitators on the treatment programme the participant had just completed (for treatment group participants only), at the end of treatment. The participants were blind to scores they were given by programme facilitators. Follow-up testing ( $N = 35$ ) was conducted for those in the treatment group only on average after 97.9 days ( $S.D = 33.0$ ). The TMQ was converted into the past tense for use at follow-up.

## Results

Correlations between PCI:OA factors and (1) the URICA (N = 129), (2) the TMQ (N = 64), (3) the score developed from the staff ratings (N = 64) and (4) individual staff ratings (N = 64), were conducted for scores at initial assessment only. As some of the data were not normally distributed, Spearman's correlations were carried out for the C scale of the URICA and the Committed Action composite, the Internal Motivation and Confidence in Treatment scales from the TMQ, the staff composite score, and all the individual staff ratings. Pearson's correlation was used for all others. Correlations are shown in Table 3 and Table 4.

Adaptive motivation significantly correlated with the Committed Action composite score of the URICA, such that an increase in adaptive motivation was associated with a corresponding increase in Committed Action scores:  $r_s = .19$ ,  $N = 123$ ,  $p = .039$ . Neither the TMQ nor URICA subscales significantly correlated with adaptive motivation. The staff composite score also did not correlate significantly with this factor. There were no significant correlations between the maladaptive motivation factor and any of the TMQ scales, URICA scales and composites, and the staff composite score. The RCI did not significantly correlate with any of the TMQ or URICA subscales, or the staff composite score.



Table 3.

Correlations between PCI:OA factors and TMQ scales, URICA scales, and URICA composites.

	TMQ scales (N = 64)				URICA scales (N = 129)				URICA composites (N = 129)		
	Internal motivation	External motivation	Help seeking	Confidence in treatment	P	C	A	M	Italian	CA	RTC
Adaptive	.186	-.253	.185	.070	-.120	.022	.168	-.157	.027	.187*	.063
Maladaptive	-.042	.206	-.046	-.056	-.153	-.128	-.075	-.157	-.067	-.037	-.015
RCI	.026	-.051	-.110	-.052	-.017	-.070	-.040	.128	.115	-.011	.008

Note. \* $p < .05$ . RCI = Readiness to commit index; CA = Committed action composite; RTC = Readiness to change composite.

Table 4.

Correlations of PCI:OA factors with staff ratings (N = 64).

	Staff composite score	Attendance	Punctuality	Concentration & Contribution	Compliance	Internal reason for therapy	External reason for therapy	Motivation for therapy	Stage of change
Adaptive	.232	.221	.293*	.128	.224	.169	.075	.316*	.262
Maladaptive	.238	.028	.051	.232	.305*	.120	.161	.152	.113
RCI	.109	.049	.080	.133	.072	.259	.106	.082	.046

Note. \* $p < .05$ . RCI = Readiness to commit index.

As the staff composite score is a new measure, all the individual scales used by staff were entered into analysis. The adaptive motivation factor was significantly correlated with staff ratings of motivation for therapy and punctuality for therapy sessions; an increase in staff rating of motivation for therapy was associated with an increase in adaptive motivation:  $r_s = .32$ ,  $N = 54$ ,  $p = .02$ , and being on time for therapy sessions as rated by staff was also associated with an increase in adaptive motivation:  $r_s = .29$ ,  $N = 53$ ,  $p = .033$ . The maladaptive motivation factor was significantly correlated with staff rating of compliance with the current programme:  $r_s = .31$ ,  $N = 54$ ,  $p = .025$ ).

Looking at the URICA, TMQ and staff composite score only, change as a result of treatment was examined using Wilcoxon Signed Ranks tests, with the 35 treatment group participants who completed measures at both initial assessment and follow-up. The results are shown in Table 5. Significant positive change was evident on the URICA's Committed Action and the Confidence in Treatment scale of the TMQ. A significant decrease was observed in the URICA's Readiness to Change composite, and the URICA Contemplation, Action and Maintenance scales. In addition, post-treatment scores on the URICA's Committed Action and the TMQ's Confidence in Treatment were positively correlated:  $r_s = .47$ ,  $N = 29$ ,  $p < .01$  (not shown in tables).

Pre- and post-treatment differences on the psychometric scores were correlated with the staff composite score. None were significantly correlated. Then, because the staff ratings were taken at the end of treatment, the post-treatment psychometric scores were correlated with the composite score. The three URICA composites correlated *negatively* with the composite score:

Readiness to Change,  $r_s = -.37$ ,  $N = 34$ ,  $p < .05$ , 1-tailed; Italian Composite,  $r_s = -.38$ ,  $N = 34$ ,  $p < .05$ , 1-tailed; and Committed Action,  $r_s = -.24$ ,  $N = 34$  (ns). Of the TMQ scales, only Confidence in Treatment correlated significantly with the composite score and this was in a positive direction:  $r_s = .32$ ,  $N = 29$ ,  $p < .05$ .

Table 5.

Pre- and post-treatment change.

Measure	Pre-intervention mean	Post-intervention mean	N	z	p
<b>URICA</b>					
Readiness to change	78.37 (10.74)	74.70 (7.75)	34	2.28	.02
Italian composite	10.83 (7.73)	10.24 (5.44)	34	0.48	.63
Committed Action	-1.14 (3.07)	1.06 (2.21)	34	2.97	.01
Precontemplation	15.80 (4.73)	15.41 (3.37)	34	0.26	.80
Contemplation	33.77 (3.00)	32.23 (2.30)	34	2.82	.01
Action	32.63 (2.96)	28.89 (2.49)	34	1.16	.00
Maintenance	27.77 (4.95)	24.60 (3.86)	34	3.68	.00
<b>TMQ</b>					
Internal	59.29 (11.26)	59.74 (8.59)	30	0.23	.82
External	12.16 (6.46)	11.65 (4.69)	30	1.19	.85
Help-seeking	29.56 (10.05)	29.50 (6.65)	16	0.51	.61
Confidence in treatment	25.33 (7.01)	28.50 (5.70)	29	2.14	.03

Note. S.D in parentheses.

## Discussion

Concurrent validity of the PCI:OA was partially demonstrated in this study. Adaptive motivation correlated significantly, and positively, with the Committed Action composite score of the URICA. This is in the anticipated direction; an increase in commitment towards a goal is associated with an increase in adaptive motivation. One of the key components of goal choice according to the TCC is that of commitment, and this finding fits in with the theory. However, none of the TMQ or URICA subscales correlated with adaptive motivation. There were also no significant correlations with the maladaptive factor. This may be associated with the fact that this factor is less stable than the adaptive factor. It is also possible that the maladaptive factor is not a valid assessment of motivation, but more research is required. The RCI did not significantly correlate with any of the TMQ or URICA subscales, or the staff composite score. The RCI measures commitment to goal pursuits and here, none of the other measures used assess commitment specifically; this may account for the lack of significant concurrent correlations.

There are three main issues that may have influenced these results. Firstly, only the CA score from the URICA was significantly correlated with any of the PCI:OA factors. This composite uses only two of the four URICA scales, and those composite scores that make use of all four scales did not significantly correlate with PCI:OA factors. This suggests that when all scales are accounted for, the PCI:OA and URICA measure different things. This highlights the problem with using composite scores. Information is lost about the actual subscale scores and a particularly large subscale score may be masked by such composites, or an anomalous scale score can skew the

composite score. This could account for the results, but the lack of concurrent validity found for the PCI:OA could actually reflect the measures used to test for this concurrent validity.

Secondly, the lack of significant correlations of the factors with the staff measure does not support the use of staff ratings to assess motivation.

However, breaking the composite score down, and assessing all staff ratings, the adaptive motivation factor was significantly, and positively, correlated with staff ratings of motivation for therapy and punctuality for therapy sessions, which suggests that the PCI:OA is tapping some kind of motivation. In support of this, the maladaptive motivation factor was significantly, and positively, correlated with staff rating of compliance with the current programme. This indicates that those participants who strive to pursue goals in a maladaptive manner are rated as more compliant. This result can be interpreted as the participant simply going 'through the motions' in order to achieve privileges, or parole, for example. It could also indicate that staff are poor at inferring the motivation of offenders, as they perceive motivation to genuinely reflect offenders' motivation to change, when perhaps this motivation is not genuine. Further work would be beneficial here in order to establish staff's rationale behind the ratings they give each participant. Some have called into question the utility of staff ratings. Indeed, Lasalvia, Ruggeri, Mazzi and Dall'Agnola (2000) and Slade, Phelan and Thornicroft (1998) report a lack of congruence between reports from patients who were accessing mental health services and staff ratings of health and social needs of the patient. Although there are various explanations, it does suggest that staff have an inability to correctly infer another's internal state. Larsson, Peterson, Lampic, von Essen and

Sjödén (1998) suggest that staff need training in assessment of what cancer patients value when being cared for, as correlations between staff and patient comments were mismatched substantially.

Finally and most importantly, the biggest problem when assessing concurrent validity is that the tests compared often have different theoretical foundations, as is the case here. Although all the measures used here are purported to measure motivation, they measure different facets of motivation. The URICA is concerned with assignation to a stage of change. Although composite scores do exist the stages of change, as the name suggests, is a stage-based theory (although this is a contentious issue; Sutton, 2001). The TMQ is concerned with motivation for treatment, in particular that of group treatment. It is concerned with how people relate to needs they have, and goals are one of the vehicles for achieving those needs. Cahill, Adinoff, Hosig, Muller and Pulliam (2003) comment that motivation for treatment and motivation for change may not be the same thing, and this suggests that concurrent validity should not necessarily be expected between the PCI:OA and the TMQ. The PCI:OA is concerned with specific goals and in particular the processes of goal achievement, and is by far the most detailed measure. So, the measures do not, strictly speaking, measure the same facets of motivation. The following quote, although discussing internal validity of a different construct raises an important point: "...to judge the adequacy of the content of a measure of psychopathy by comparing it with DSM criteria is inconsistent with the differing theoretical frameworks underlying these classification systems" (Frick, 2000, p. 451). Extrapolating this to the findings reported in this chapter, it is clear that the theories underlying the measures



used in this chapter are not the same; the measures assess conceptually different facets of the construct of motivation.

To compound this issue, further data presented in this chapter concerning the URICA, TMQ, and staff composite score alone suggest that the URICA, TMQ, and staff composite may be of limited value in measuring motivation to change. Overall, only the Confidence in Treatment scale of the TMQ provided consistent evidence of motivation to change. This scale showed significant positive change post-treatment, correlated positively with the URICA's Committed Action, the only other scale to show significant positive change post-treatment, and correlated significantly and positively with staff rating of engagement. Whether this scale predicts behaviour change remains to be tested, and the small number of participants means that these results should be taken only as indicative.

Limited concurrent validity has been demonstrated and as validation is an ongoing process, more research is required. However, this may prove difficult given the lack of valid measures of offenders' motivation to change in existence. To complement the work completed thus far, it may be worthwhile to look at other forms of validity, for example predictive validity; can the PCI:OA predict reconviction?

## Chapter 6

### Predictive validity of the PCI:OA.

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#### Summary

A key property of any test is its ability to predict outcome (Keppel, Saufley & Tokunaga, 1992). This chapter describes the testing of the predictive validity of the PCI:OA. If treatment is effective, the PCI:OA should be sensitive to changes in rating scale scores for the treatment group, but not for the comparison group, who receive no intervention between the two PCI:OA administrations. As evidence for treatment effectiveness, group membership was found to predict reconviction, with 4 of the 37 (10.81%) treatment group participants being reconvicted, compared with 29 of the 52 (55.77%) comparison group participants; the survival analysis indicated that participants in the comparison group were 6.52 times more likely to be reconvicted than those in the treatment group. Given that treatment is effective, differences in PCI:OA rating scale scores and factor scores were examined. The treatment group rated the mean likelihood of goal achievement higher than the comparison group at initial assessment and at follow-up. At follow-up the treatment group also reported having greater control over goal achievement than the comparison group. Over time treatment group scores on the Control rating scale increased. With regards the adaptive motivation factor scores, there was no significant main effect of treatment group, main effect of time, or interaction between group and time. For the maladaptive factor, there was no significant main effect of time or significant interaction between group and time. However, there was a significant main effect of treatment group, such

that the treatment group had lower maladaptive motivation scores than the comparison group, with this result being more pronounced at follow-up. The RCI did not significantly differ over time or between-groups.

To examine predictive validity, Home Office reconviction data were collected at mean 234 days post-release (N=89). Entering adaptive motivation and maladaptive motivation scores into a survival analysis indicated that neither adaptive motivation nor maladaptive motivation predicted reconviction. These findings, as well as the lack of significant differences between- and within-groups for the scale scores, factor scores and RCI, may be explained by a mismatch between treatment targets and PCI:OA scale content, and the small number of participants. In addition, follow-up time was shorter than advised by other researchers. However, this result could also reflect a genuine inability of the PCI:OA to predict who will be reconvicted. More studies need to be conducted with larger samples and longer follow-up periods, as well as those studies which use measures of shorter-term predictive validity, for example motivation change as measured by staff.

## Introduction

In assessing the utility of a measure, it is important to not only consider concurrent validity and construct validity, but also predictive validity. In Cox and colleagues' study of 77 participants abusing drugs and/or alcohol, the adaptive motivation factor significantly predicted determination to change, as measured by the URICA, and negatively predicted denial of problem (Cox, Blount, Bair & Hosier, 2000). In another study, Cox et al. (2002) found that adaptive motivation factor scores in their sample of university students from four countries correlated positively with positive affect, and negatively with negative affect. It was also a significant negative predictor of annual absolute alcohol intake in those who viewed alcohol as a problem. Although the maladaptive factor did not seem to predict alcohol consumption in Cox et al.'s (2002) study, it is still worth considering this factor in the current study, since this is the first study of its kind with offenders.

The aim of this chapter is to elucidate the predictive validity of the PCI:OA. Firstly, if treatment is effective, then one would expect positive changes in PCI:OA scores over time to be evident in the treatment group but not in the no treatment comparison group. To support the supposition that treatment is effective, a survival analysis of reconviction with treatment group entered as the main variable of interest was conducted. If treatment is effective, those who received treatment should be less likely to be reconvicted. Secondly, predictive validity could be evidenced if the PCI:OA scores predict reconviction. Given previous studies, it was predicted that the adaptive factor, as opposed to the maladaptive factor, would be a better predictor of reconviction.

## Method

### *Participants*

Potentially, all 129 participants from the study in Chapter 4 were eligible for inclusion in the analyses. However, participants had to have a record on the Home Office Police National Computer (HOPNC) to be included in analyses, and currently be in the community. Four participants' criminal records could not be found and subsequently these were omitted from analyses. Thirty-eight participants were still in prison at the time of reconviction data recovery, although 2 of these had no record on the HOPNC. This left a total sample available for analysis of 89; 37 participants comprised the treatment group, and 52 comprised the comparison group. Demographic information for this sample is reported in Table 1.

The quantitative data were not normally distributed (according to the Shapiro-Wilk test of normality), and so Mann-Whitney U tests were used to test for differences between the treatment group and the comparison group. Chi square tests were used for remaining tests. (The small number of participants in each group of the 'index offence' category did not allow for testing of differences.) Participants in the treatment group had significantly longer sentences and a significantly longer time left to serve than those in the comparison group. The comparison group participants, on the other hand, had significantly more youth custody sentences, court appearances, convictions, and total number of offences when compared to treatment group participants.

Table 1.

Participant information for those participants included in survival analyses.

	Treatment (N = 37)	Comparison (N = 52)	Significance tests
Age in years	29.5 (6.6)	29.1 (6.6)	U = 931.0, p = .796
Age left full time education	15.7 (1.8)	15.0 (1.5)	U = 793.5, p = .152
Nationality			$\chi^2_{(1)} = 2.9, p = .170^a$
British	35	52	
Other	2	0	
Ethnicity			$\chi^2_{(1)} = 2.3, p = .232^a$
White	36	46	
Other	1	6	
Marital Status			$\chi^2_{(1)} = 0.3, p = .658^a$
Single	22	34	
Not Single	15	18	
Employment Status			$\chi^2_{(1)} = 4.4, p = .052^a$
Employed	24	22	
Unemployed	13	30	
Index Offence			-
Acquisitive	9	14	
Criminal damage/Fire setting	1	1	
Drugs	4	4	
Vehicle	1	16	
Violent	21	15	
Other	1	2	

Age first convicted	18.6 (5.3)	17.8 (6.3)	U = 812.5, $p = .212$
Time in years since first conviction	10.9 (9.1)	11.4 (6.1)	U = 850.0, $p = .351$
Length current sentence (months)	30.3 (13.6)	15.2 (13.9)	U = 340.5, $p < .001$
Time left to serve in months	8.8 (6.5)	2.5 (3.5)	U = 229.0, $p < .001$
No. youth custody sentences	1.2 (2.5)	2.3 (2.8)	U = 654.0, $p = .006$
No. court appearances	17.5 (19.6)	38.2 (51.0)	U = 651.0, $p = .015$
Total no. of convictions	17.9 (24.6)	38.0 (43.4)	U = 626.0, $p = .005$
Total no. of offences	26.7 (37.3)	56.8 (78.9)	U = 635.5, $p = .011$

*Note.* S.D in parentheses. <sup>a</sup> Fisher's exact test.

In order to investigate how PCI:OA scale scores, factor scores and the Readiness to Commit Index (RCI) changed over time, data from 54 participants who completed the PCI:OA at both initial assessment and follow-up were analysed; 34 were in the treatment group and 20 participants were in the comparison group. These participant demographics are shown in Table 2.

The quantitative data, with the exception of time in years since first conviction, were not normally distributed (according to the Shapiro-Wilk test of normality), and so Mann-Whitney U tests were used to test for the majority of differences between the treatment group and the comparison group. Chi square tests were used for categorical data. (The small number of participants in each group of the 'index offence' category did not allow for testing of differences.) Participants in the treatment group were significantly older when they left full time education, had significantly longer left to serve, and had significantly less convictions, when compared to the comparison group.

Table 2.

Participant information for those participants who completed the PCI:OA at initial assessment and follow-up.

	Treatment group ( <i>N</i> = 34)	Comparison group ( <i>N</i> = 20)	Significance tests
Age in years	30.7 (7.5)	31.0 (5.7)	$U = 318.0, p = .69$
Age left full time education	15.8 (1.6)	14.4 (2.2)	$U = 217.5, p = .02$
Nationality			$\chi^2_{(1)} = 0.2, p = 1.00^a$
British	33	19	
Other	1	1	
Ethnicity			$\chi^2_{(1)} = 1.3, p = .35^a$
White	32	17	
Other	2	3	
Marital Status			$\chi^2_{(1)} = 1.9, p = .23^a$
Single	21	16	
Not Single	13	4	
Employment Status			$\chi^2_{(1)} = 2.0, p = .13^a$
Employed	22	9	
Unemployed	12	11	
Index Offence			-
Acquisitive	3	5	
Criminal damage/Fire setting	2	2	
Drugs	4	3	
Vehicle	0	1	



Violent	23	9	
Other	2	0	
Age first convicted	20.1 (7.9)	18.1 (7.8)	U = 243.5, <i>p</i> = .08
Time in years since first conviction	10.5 (7.7)	13.5 (6.1)	<i>t</i> (52) = 1.45, <i>p</i> = .15
Length current sentence (months)	63.6 (57.6)	41.7 (37.9)	U = 185.5, <i>p</i> = .21
Time left to serve in months	33.7 (43.2)	15.4 (19.5)	U = 139.0, <i>p</i> = .04
No. youth custody sentences	0.9 (1.7)	2.7 (3.8)	U = 258.0, <i>p</i> = .10
No. court appearances	17.0 (20.4)	44.3 (66.7)	U = 232.5, <i>p</i> = .05
Total no. of convictions	13.5 (15.9)	36.2 (35.3)	U = 210.0, <i>p</i> = .02
Total no. of offences	22.2 (26.2)	48.6 (60.1)	U = 243.5, <i>p</i> = .12

*Note.* S.D in parentheses. <sup>a</sup> Fisher's exact test.

### *Measures*

The PCI:OA was described in full detail in Chapter 4. The PCI:OA was scored in two ways for these analyses. First, adaptive and maladaptive motivation factor scores were calculated in each case by subtracting the sum of negatively loaded scale scores from the sum of positively loaded scale scores and dividing by the number of items in the factor. Second, the Readiness to Commit Index (RCI) was calculated using W. M. Cox and E. Klinger's formula:  $\text{Commitment} = \sqrt{(\text{Value} * \text{Expectancy})}$ , where Value equals the score on the Happiness scale minus that on the Unhappiness scale, and Expectancy is equivalent to the score obtained on the Likelihood scale (personal communication, 21 March, 2005).

Reconviction data were obtained from the HOPNC on 13<sup>th</sup> October 2005. There is, approximately, a 6 to 8 week time lag between an offence

being committed and it being recorded on the HOPNC, so information retrieved is not wholly accurate. Information was collected about date of offence, offence type, offence severity, and disposal information (i.e. whether the participant was sent to prison, received community punishment or fines).

### *Procedure*

The study was approved by HM Prison Service's Area Psychologist for Wales and the Prison Governor. The nature of the study was explained and participants provided written, informed consent upon agreeing to take part. Confidentiality was assured. The men were interviewed individually in classrooms within the prison's Resettlement Unit. Information was collected on age, level of education, marital status, employment status, index offence, and previous convictions and offences.

After completing the demographic information, participants completed the PCI:OA. This was conducted as an interview. Life areas were introduced, and the meaning of 'concerns' was explained as encompassing both positive and negative issues that participants may want to address in any life area. If the participant had no concerns in a particular life area, the interviewer moved on to the next. Interviews typically took 2 to 3 hours, and at the end of the interview, participants were given the opportunity to ask questions. Follow-up PCI:OA interviews were carried out at a mean of 101.3 (S.D 44.2) days after initial assessment. Reconviction data were retrieved from the Home Office approximately 6 months after the last follow-up interview was completed. This required sending the Home Office a list of names that they checked for a

record of convictions. Participants had been at risk for a mean of 234.4 days (SD = 183.4, range 3 to 793 days).

### *Statistical analyses*

First, in order to investigate treatment effectiveness, a survival analysis of reconviction was carried out with treatment group membership entered as the variable of interest. If the treatment group were less likely to be reconvicted than the comparison group then evidence is provided for treatment effectiveness. Survival analysis, an extension of regression, considers the time until an event happens taking into account the fact that not all participants will have experienced that event, and that time at risk will be person-specific (Tabachnick & Fidell, 2001). A standard regression would not take into account censored cases, which are cases that are included in analysis but have not, at the time of analysis, experienced the event - reconviction - that is under consideration. Regression would simply disregard these data as missing. There are several forms of survival analysis, and given that there are significant differences between the groups in terms of demographics (hereon called covariates), these need to be controlled for in any analyses conducted. It was for this reason that a Cox proportional hazards model was selected (also known as the Cox regression model). This is analogous to an ANCOVA; differences between groups are tested for, but pre-existing between-group differences are taken into consideration. The assumption of the Cox regression model is that the shape of the survival curves is the same for each group (treatment and comparison) over time (Tabachnick & Fidell, 2001), and testing of this assumption is also reported.

Second, if treatment is effective, then it would be expected that the PCI:OA would register changes for the treatment group over time, and that the treatment group and the comparison group would differ on PCI:OA scale scores, particularly at follow-up. Therefore, pre- and post-treatment PCI:OA scale scores were assessed for between-group differences. Score change from initial assessment to follow-up for the treatment group was also computed. Factor scores and the RCI were then investigated for between-group and within-group differences.

Third, to investigate predictive validity of PCI:OA factors, a survival analysis was carried out with both PCI:OA factors entered as the variable of interest, to see whether PCI:OA factors predicted reconviction.

## Results

### *Treatment effectiveness*

Of the 89 prisoners in the reconviction analysis, 33 (37.1%) had reoffended by 13<sup>th</sup> October 2005; 29 of the 52 (55.77%) comparison group participants had reoffended compared to 4 of the 37(10.81%) of the treatment group. These participants accounted for a total of 189 reconvictions. The mean number of reconvictions per participant was 6 (S.D = 5), and the range of reconvictions for those reconvicted was 1 to 22. All reconvictions were included in analysis no matter what the severity, with the least severe reconviction recorded as breach of community rehabilitation order, and the most severe reconviction being related to committing severe criminal damage. Reconvictions included offences related to: terrorism, stealing, breach of community or rehabilitation orders, possession of illegal drugs, violence,

driving (including driving while disqualified, driving with no insurance, driving with no licence, and dangerous driving), failure to surrender to bail, obstructing the Police, begging, and criminal damage. The most common reconvictions were for offences related to stealing and driving, with these accounting for over half of all reconvictions.

In order to further investigate who was reconvicted, a Cox regression survival analysis was carried out to assess whether treatment group predicted survival (i.e. whether a person will reoffend or not), after controlling for the demographic factors that significantly differed between the groups initially: length of current sentence, time left to serve, number of youth custody sentences, number of court appearances, number of convictions, and total number of offences. In order to test for the proportionality of hazards assumption, each covariate was multiplied by natural log time and entered into a Cox regression with time dependent covariates. None of the covariates interacted with time significantly, and the number of covariates entered into analysis subsequently was seven: length of current sentence, time left to serve, number of youth custody sentences, number of court appearances, number of convictions, total number of offences, and treatment group. Eighty-nine participants were included in the analysis; there were 52 censored cases and 30 cases in which the event (reconviction) had occurred. (There was missing data for some of the covariates which reduced the number of participants in analysis.)

After adjusting for the covariates, treatment group significantly predicted reconviction: Wald = 6.73, df = 1,  $p = .01$ . The odds ratio from the survival analysis indicated that the comparison group were 6.52 times more

likely to reoffend than the treatment group. Figure 1 shows the survival curves for the treatment and comparison group separately.

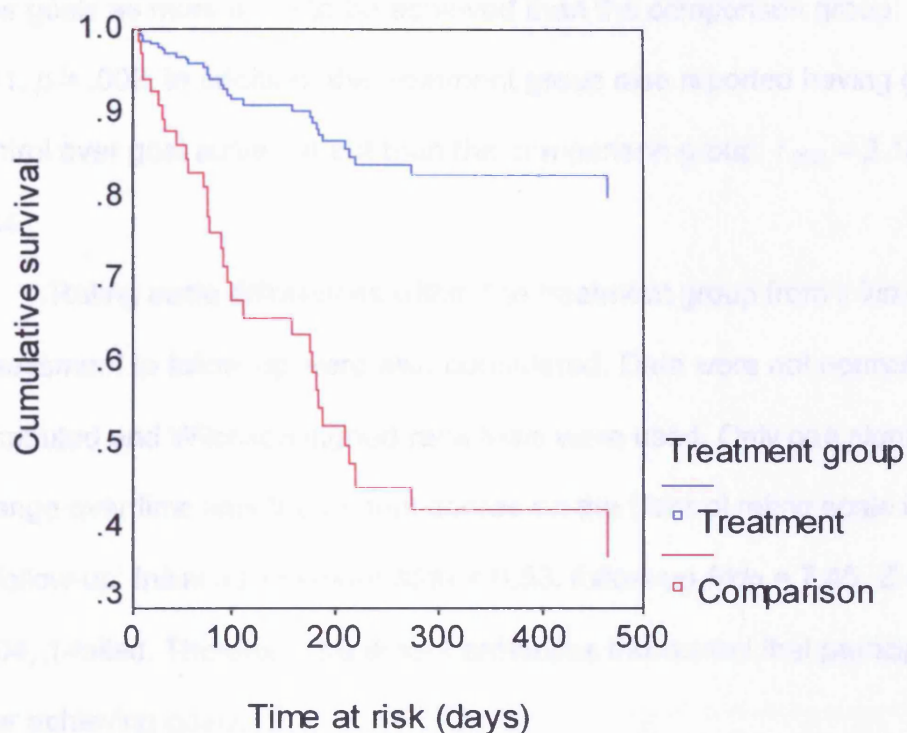


Figure 1. Survival curves for the treatment group and the comparison group.

#### *Treatment and comparison group differences in PCI:OA scores*

*Scale scores.* To examine whether the PCI:OA is sensitive to differences between groups, scores for each rating scale were averaged across all life areas and treatment and comparison group scores were compared using Mann-Whitney tests or t tests, depending on whether data were normally distributed. Of those participants who completed the PCI:OA at initial assessment and follow-up, there was only one significant difference between groups at initial assessment. The treatment group rated the mean

likelihood of goal achievement higher than the comparison group:  $t_{(52)} = 3.07$ ,  $p = .003$ .

At follow-up, after receiving treatment, the treatment group still rated their goals as more likely to be achieved than the comparison group:  $t_{(52)} = 3.31$ ,  $p = .002$ . In addition, the treatment group also reported having greater control over goal achievement than the comparison group:  $t_{(52)} = 2.18$ ,  $p = .034$ .

Rating scale differences within the treatment group from initial assessment to follow-up were also considered. Data were not normally distributed and Wilcoxon signed rank tests were used. Only one significant change over time was found, that scores on the Control rating scale increased at follow-up: Initial assessment  $Mdn = 6.53$ , follow-up  $Mdn = 7.45$ ,  $Z = 1.77$ ,  $p = .04$ , 1-tailed. Therefore, treatment enhances the control that participants feel over achieving goals.

*Factor scores.* Change over time can also be gauged from adaptive and maladaptive motivation indices, calculated from factor loadings from the two factor solution. There were 34 participants in the treatment group and 20 participants in the comparison group who completed the PCI:OA interview at both initial assessment and follow-up. A two-way mixed ANOVA was calculated for each of the factors, in order to investigate differences between groups and change over time. Factor scores are shown in Table 3.

A two-way mixed ANOVA was carried out with treatment group as the between-subjects factor and time entered as the within-subjects factor, to test for differences between- and within-groups for the adaptive motivation factor. There was no significant main effect of treatment group:  $F_{(1, 48)} = 1.04$ ,  $p =$

.31, no significant main effect of time:  $F_{(1, 48)} = 1.42, p = .24$ , and no significant interaction:  $F_{(1, 48)} = 0.001, p = .98$ .

Table 3.

Mean factor scores.

	Treatment group N = 34	Comparison group N = 20
<b>Adaptive motivation</b>		
Initial	5.35 (0.89)	5.14 (0.98)
Follow-up	5.56 (0.96)	5.30 (0.77)
<b>Maladaptive motivation</b>		
Initial	-3.68 (0.69)	-3.98 (0.99)
Follow-up	-3.51 (0.69)	-4.00 (0.77)

*Note.* S.D in parentheses.

Data for the maladaptive factor were then subjected to analysis. A two-way mixed ANOVA was carried out with treatment group entered as the between-subjects factor and time as the within-subjects factor. There was no significant main effect of time:  $F_{(1, 52)} = 0.42, p = .52$  and no significant interaction:  $F_{(1, 52)} = 0.64, p = .43$ . However, there was a significant main effect of treatment group:  $F_{(1, 52)} = 4.66, p = .04$ , such that the treatment group had lower maladaptive motivation than the comparison group, with this result being more pronounced at follow-up.

*RCI.* RCI scores are shown in Table 4. In order to investigate between- and within-group differences for the RCI, a two-way mixed ANOVA was



carried out with treatment group as the between-subjects factor and time entered as the within-subjects factor. There was no significant main effect of treatment group:  $F_{(1, 52)} = 3.24, p = .08$ , no significant main effect of time:  $F_{(1, 52)} = 0.51, p = .48$ , and no significant interaction:  $F_{(1, 52)} = 0.45, p = .50$ .

**Table 4.**

**Mean RCI scores.**

	Treatment group N = 34	Comparison group N = 20
Initial assessment	1.05 (0.93)	1.56 (2.32)
Follow-up	1.05 (1.01)	1.83 (1.70)

*Note.* S.D in parentheses.

***PCI:OA factors and reconviction***

A Cox regression survival analysis was carried out to assess whether PCI:OA factors predicted survival (i.e., whether a person is reconvicted or not), after controlling for the demographic factors that significantly differed between the groups initially: length of current sentence, time left to serve, number of youth custody sentences, number of court appearances, number of convictions, and total number of offences. Treatment group was also entered as a covariate. In order to test for the proportionality of hazards assumption, each covariate was multiplied by natural log time and entered into a Cox regression with time dependent covariates. Total number of offences interacted with time significantly, and the number of covariates entered into analysis subsequently was 10, as this interaction term had to be entered into

analysis as a covariate. As a result the variables entered into analysis were: length of current sentence, time left to serve, number of youth custody sentences, number of court appearances, number of convictions, total number of offences, the log time-number of offences interaction, treatment group, adaptive motivation and maladaptive motivation. Eighty-nine participants were included in the analysis; there were 49 censored cases and 30 cases in which the event (reconviction) had occurred. (There were missing data for some of the covariates which reduced the number of participants in analysis.)

After adjusting for the covariates, both adaptive and maladaptive motivation failed to predict reconviction: Wald = 2.00, df = 1,  $p = .16$  and Wald = 0.03, df = 1,  $p = .87$ , respectively. Figure 1 on page 143 shows the survival curves for the treatment and comparison group.

### Discussion

Strong evidence is provided for the effectiveness of treatment. Results from the survival analysis indicate that those in the comparison group are 6.52 times more likely to be reconvicted than the treatment group. Given that completing treatment appears to be effective in reducing reconviction, the PCI:OA scales can be consulted for differences between groups, and over time, within the treatment group. At initial assessment, the treatment group rated the mean likelihood of goal achievement higher than the comparison group. This result suggests that there were pre-existing differences between groups at initial assessment, and this could reflect positivity towards goal achievement or unrealistic expectations in the treatment group. At follow-up, after receiving treatment, the treatment group still rated their goals as more

likely to be achieved than the comparison group, with a slight increase in scale score from initial assessment, which would suggest that treatment maintained such feelings. Treatment also appears to have facilitated feelings of control over goal attainment. Treatment group scores for the Control rating scale significantly increased at follow-up. Therefore, the PCI:OA is sensitive to changes in control and also likelihood, although it is disappointing that no other scales were significantly different. It is possible that treatment did not target those characteristics that the PCI:OA rating scales target, for example, the importance of achieving goals. However, the small number of participants in each group has implications for the power of such calculations, and therefore the validity of findings here.

Adaptive motivation scores did not significantly change over time, or between groups. This could reflect the small number of participants in each group, although it is also possible that the treatment did not adequately target those factors within the adaptive motivation factor, for example, the happiness that can be obtained once a goal is obtained. Given that the adaptive motivation factor is usually more robust than the maladaptive factor, this result is surprising. Again, for the maladaptive factor there was no significant effect of time and no significant interaction. However, there was a significant effect of treatment group, and the treatment group had lower maladaptive motivation than the comparison group, with this result being more pronounced at follow-up. This supports the idea that perhaps the treatment group were different from the comparison group at the start, but treatment appears to have an effect on motivation by decreasing maladaptive motivation, rather than facilitating an increase in adaptive motivation. Adaptive motivation, not

maladaptive motivation, has been linked to positive outcome in previous research (for example, Schroer, Fuhrmann & de Jong-Meyer, 2004; Cox et al., 2000). It could be that, contrary to results found in other samples (e.g. Cox et al., 2002), the maladaptive factor is more important in offender samples in terms of outcome. This is also contrary to what was anticipated.

There were no significant effects of group or time in analysis of RCI. However, treatment does not target commitment as such, and participants may not have improved in their ability to consider realistic options with regards goal pursuit, hence this non-significant result.

The survival analysis yielded non-significant results for the adaptive and maladaptive motivation factors as predictors of reconviction. These results do not provide support for the predictive validity of the PCI:OA. However, it is important to consider that these non-significant results may reflect the short follow-up period, the small number of participants in analysis, the targets of the treatment programme (which are different from those in the PCI:OA rating scales, factor scores and RCI), or the inability of the PCI:OA to measure change sufficiently. Given these reasons, further research is required to tease these issues apart. In addition, using reconviction as a measure of recidivism may not reflect true recidivism, as offenders may commit an offence but not get caught (Goldblatt & Lewis, 1998). Other problems include: incomplete criminal records, plea-bargaining, and time delays between charges and offences being recorded. This time delay can mean that offences that were committed before the index offence, but for which sentencing and entry onto records occurred after, appear as a reconviction although they are not. In addition, there were a comparatively

small number of participants included in the reconviction analysis here, and to confound this problem, in terms of numbers typically used in survival analysis, there was a comparatively small number of events (i.e. reconvictions). Thus, results here should be viewed with caution (Greenberg, Firestone, Nunes, Bradford & Curry, 2005). It is possible that with a greater number of participants, adaptive and maladaptive motivation could account for survival rates (i.e. incidence of reconviction). Although in terms of participant wellbeing and public protection a lack of reconviction is positive (if this is taken to indicate a lack of reoffence), it means that survival analysis may not be very sensitive. Also, the follow-up period used here was also comparatively short and future consideration could be given to a longer follow-up period; Hanson and Bussière (1998) comment that a suitable follow-up period is in the region of 5 to 10 years. As Hanson and Bussière (1998) worked with sex offenders the long follow-up period they recommend may not apply to non-sex offenders. Here, however, it is recommended using a follow-up period of approximately 2 years. It is hoped that the results drawn from such studies will be more valid.

## **Chapter 7**

### **Concerns raised in a prison sample: A qualitative analysis.**

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#### **Summary**

Treatment is important for some offenders if they are not to reoffend in the future (Hollin, 1999). Information about concerns and goals of men in prison could prove necessary in tailoring existing treatment services, and for the development of further services which target recidivism reduction. Basic thematic analysis, conducted by the researcher, of data yielded from a male prison sample (N = 129) using the PCI:OA semi-structured interview, was carried out. Clear themes were identified, such as those associated with self-control, getting a job, and improving money management skills. Overall, prisoners wanted to better themselves, no matter in what area concerns were raised. These results from a UK sample are supported by the international (although mainly North American) empirical literature detailing criminogenic needs that should be targeted in rehabilitation programmes. These results also provide support for the goods that Ward includes in the Good Lives Model (Ward & Brown, 2004). Hence, the PCI:OA is able to tap concerns associated with the What Works literature that details factors that should be targeted in offender rehabilitation. Implications for future research are discussed.

## Introduction

Thus far, the focus of this thesis has been on quantitative psychometric analysis, which is essential to the development of a robust measure of offenders' motivation to change and to enter treatment. However, despite this being an essential requirement of test development, psychometric analysis of PCI:OA information does not describe prisoners' actual concerns. Hayes (1998) advocates the use of qualitative data analysis as a way in which quantitative data can be supplemented. Qualitative information from the PCI:OA has potential relevance to the development of counselling and other resources for prisoners. In counselling, the focus would be the actual concerns identified by respondents. It could also inform the development of services relevant to offenders' self-perceived needs. The PCI underlies the counselling technique of SMC (Cox & Klinger, 2004c; Cox, Klinger & Blount, 1991), and it was one of the guiding factors in adapting the PCI for offenders. If the PCI:OA proves a robust measure of offenders' concerns, then it may form the basis of an intervention that could motivate change. If the concerns from the PCI:OA are similar to the What Works literature, which details successful targets for recidivism reduction, then it would suggest a relevant measure. Lewis et al. (2003), in an evaluation of seven resettlement projects in prisons in England and Wales for prisoners who were serving 12 months or less, found that service users reported accommodation, drugs, employment and thinking skills to be the main issues of concern. Concerns highlighted by prisoners in the PCI:OA interviews would augment and extend knowledge of prisoners' needs and further inform rehabilitation and resettlement work, building upon the work of Lewis et al. (2003).

The PCI:OA has been described extensively in previous chapters, but until now, how the life areas were generated has not been covered. The life areas within the PCI were initially identified using open-ended interviews to assess concerns. The life areas that were subsequently included in the PCI and its predecessors were those that people had most frequently named during these initial interviews (M. Cox, personal communication, 16 May, 2006). A similar positive approach to offender treatment has been developed in recent years by Tony Ward and colleagues, and is called the Good Lives Model (GLM; Ward & Brown, 2004). This postulates that there are nine needs in which all humans strive to achieve fulfilment, namely: life (healthy living and functioning), knowledge, excellence in play and work, excellence in agency, inner peace, relatedness and community, spirituality, happiness, and creativity. The Good Lives needs were derived from an extensive literature about personal goal striving and motivation, but a full evaluation of this is beyond the scope of this chapter; for further detail see Ward, 2002. However, little empirical support is available for the GLM, and since there is clear overlap of Good Lives needs and PCI:OA life areas, analysis of what prisoners identify as their concerns may provide evidence for the GLM.

Given the paucity of data detailing the concerns of offenders, this study sought to uncover what concerns and goals incarcerated offenders had, and how these could provide the basis of recommendations for rehabilitative practice. Here, basic qualitative analysis is used to analyse PCI:OA interviews, in order to yield concerns prisoners had.



## Method

The PCI:OA was administered to 129 male prisoners, as described in earlier chapters. The table of demographics for the whole sample is presented on page 80.

### *Analysis and reporting*

As the purpose of this study was to establish what concerns prisoners had, a thematic analysis was appropriate. The suggestions of Goodley, Lawthorn, Tindall, Tobbell and Wetherell (2003) were followed. When conducting the analysis it was necessary to familiarise oneself with the data (reading and re-reading the interview transcripts), and then highlighting themes within the interviews. There was no limit to the number of themes that could be identified, and in order to qualify as a theme, the excerpt had to be a sentence or longer, thus forming a 'quote'. Goodley et al. (2003) do not comment how many instances of a theme need to be present to enable a theme to be developed. Instead, they comment that the meaning of any theme needs to be described, "with sufficient quotes from the transcript to support the meaning" (Goodley et al., 2003, p. 36). As Flick (1998) comments, "the subjectivities of the researcher *and* of those being studied are part of the research process" (p.6). The researcher conducted the thematic analysis alone. In this analysis, themes are presented in order of decreasing prevalence, and following the guidelines of Goodley and colleagues (2003), quotes are selected to illustrate themes.

## Results

The most frequently cited areas were Self changes (changes that people want to make to themselves), Employment and finances, and Partner, family and relatives. Life areas are presented in order of decreasing number of total concerns. For each life area in turn, a figure is presented which details the themes and sub-themes, and a short summary follows accompanied by quotes where appropriate. The numbers in parentheses in each figure represent the number of concerns elicited in each theme or sub-theme.

### *Self-changes*

There were a total of 138 concerns in this area, but one concern about 'stopping a self-destructive personality' could not be classified under any of the themes developed and so is not recorded here. The two main themes in this life area were those of increasing self-control, and achieving a better lifestyle, shown in Figure 1. The sub-themes for both these main themes reflect different ways in which participants wanted to address self-control issues or achieve a better lifestyle. The following quotes explain the sub-themes for the theme of self-control, starting from the most prevalent theme (reduce drugs/drink intake), to the least prevalent (increase self-awareness):

*"Don't want to use drink and drugs like I used to".*

*"I'm getting old. I would like to stop getting into trouble and offending".*

*"Usually I get a job, do it for a bit and then give it up. I would like to get more motivated for work".*

*"Got to learn to control my temper, think things through".*

*"Resist getting into cars because I'll end up back here".*

*"I've spent 4 years trying to work out why I did what I did. I'd like to understand more about myself and others".*

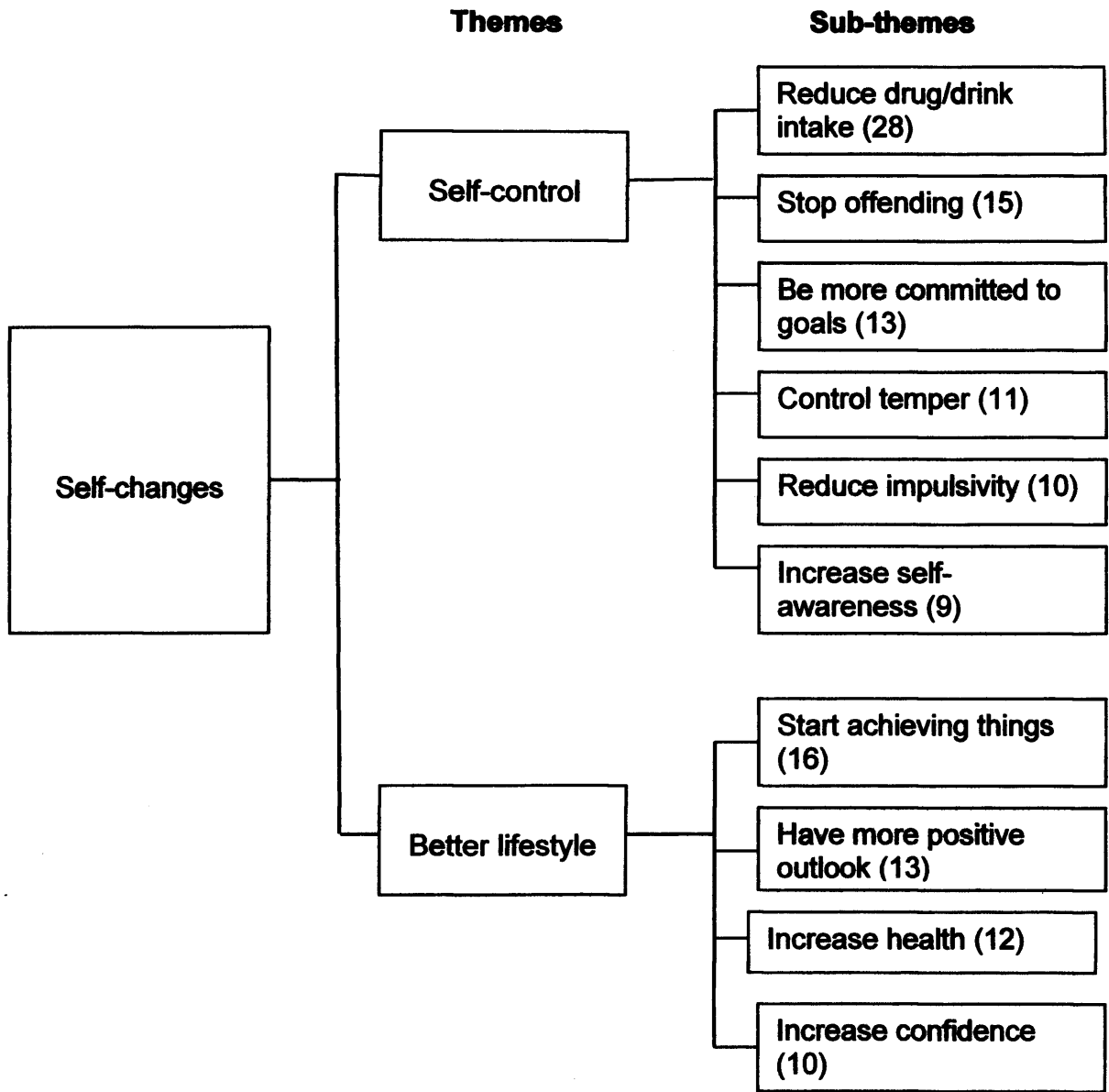


Figure 1.

Themes and sub-themes in the Self-changes life area.

The following quotes illustrate the sub-themes of the better lifestyle theme. Again, there is one quote for each of the sub-themes as the list is read top to bottom. For the first sub-theme, achievements named were those relating to starting a family, getting a job and returning to education. The remaining sub-themes are self-explanatory.

*"I would like a better lifestyle; more money, settle down, have a family and live my life".*

*"I want to be less cynical, and have more of a positive outlook about other people's motives and behaviour".*

*"I would like to lose weight".*

*"I would like more self-confidence, increase my will power. I'll be less likely to take drugs then; taking drugs long-term knocks your confidence".*

### ***Employment and finances***

There were a total of 134 concerns in this area, but two concerns could not be classified into either the existing themes or a new theme, and are not accounted for here. One of these concerns was about the desire for a solitary job; the other was about achieving a better work-social life balance. As in the previous life area, there were two major themes, although only one of these had sub-themes here. The sub-themes of 'desire for a job' all described conditions of that job, with the exception of wanting more experience; this latter sub-theme described how participants wanted to get relevant experience in order to further their chosen career. The following quotes describe the five sub-themes in the order given in Figure 2:

*"I would like a normal 9-5 job, to be normal like other people".*

*“Always had problems holding a job, frustrated, ordered about and poor pay. I would like to find a job that I can keep”.*

*“I have no qualifications, and haven’t stuck at one thing... Would like to go into business”.*

*“Friend...offered me a job as a trainee manager if I get the right experience. I would like to gain the right experience and not waste this opportunity”.*

*“Previously I’ve had dodgy jobs. Been in prison... never done a proper job. I would like a proper job where I pay tax and stuff”.*

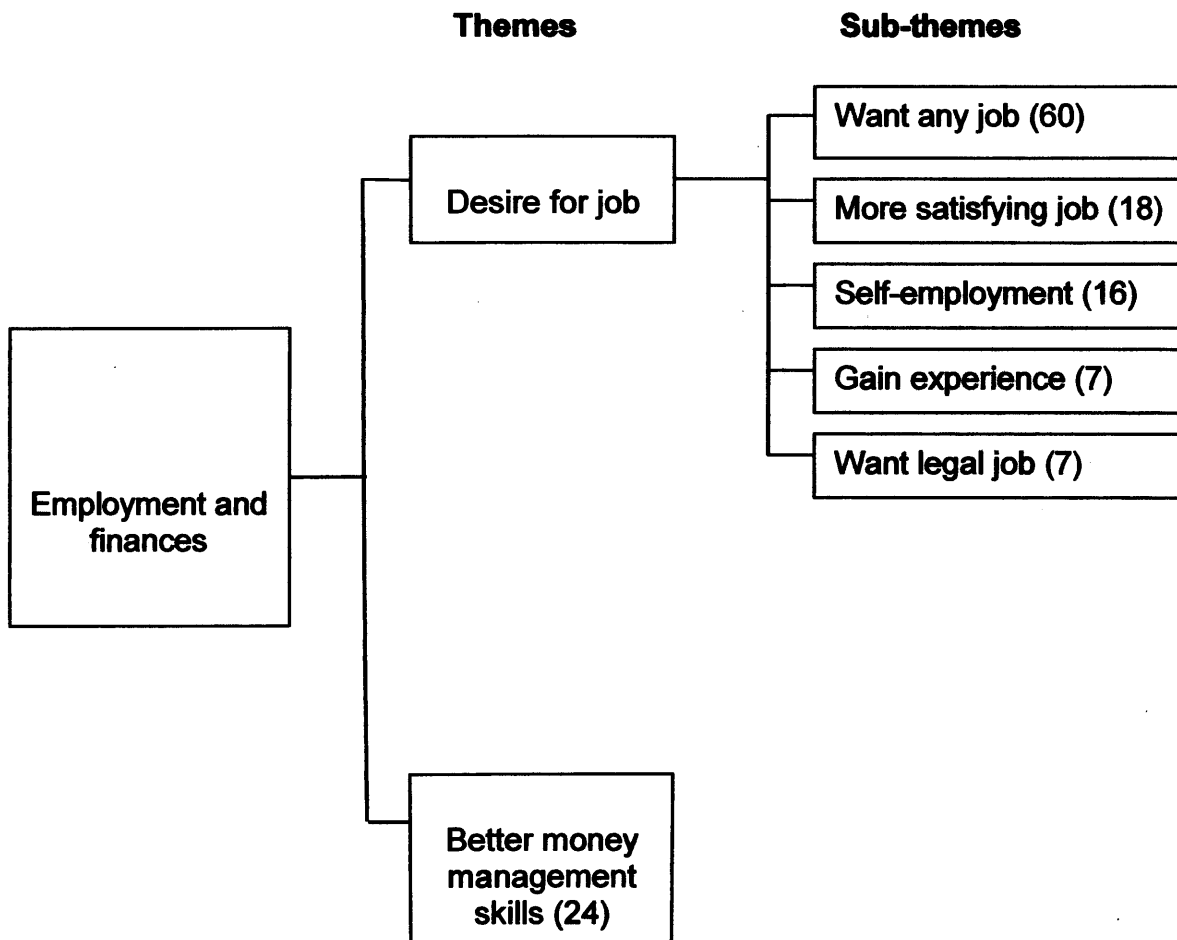


Figure 2.

Themes and sub-themes in the Employment and finances life area.

*Partner, family and relatives*

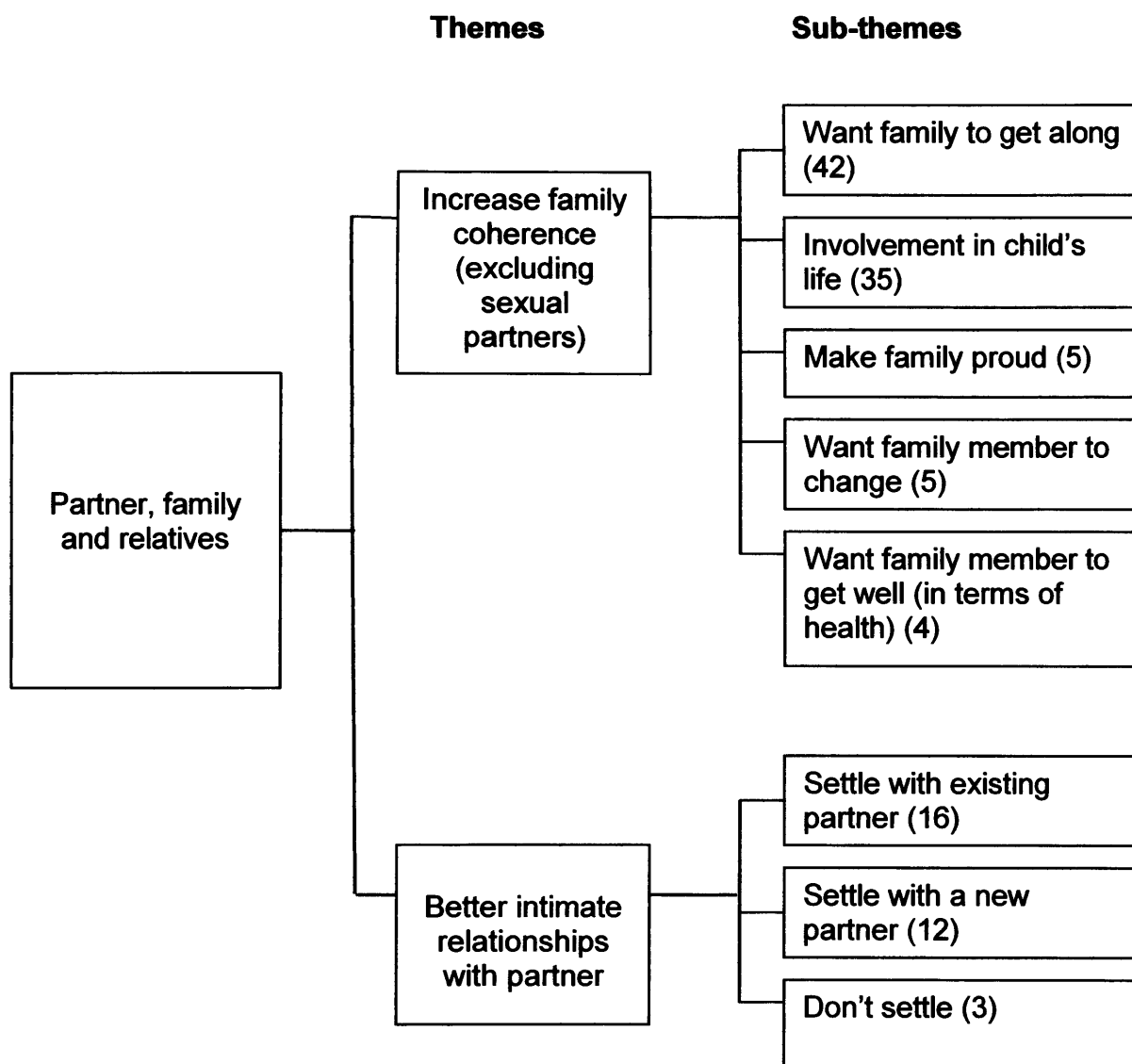


Figure 3.

Themes and sub-themes in the Partner, family and relatives life area.

As can be seen in Figure 3 there were two themes in the Partner, family and relatives life area. By far the most highly endorsed sub-theme was that of wanting one's family to get along. Clearly there was much family discord and dissatisfaction with existing relationships. One participant commented: *"I've not spoken to my brother for 4 years. He's not forgiven me from changing dealing*

*pills to crack... Would like to sort things out with my brother". Another commented: "I would like my sister to chill out; she's always on my back".*

Nearly as many participants wanted to play a role in their child's life: *"I have a little boy, 4 years old. I want to be a good dad".* Considerably fewer participants wanted to make their family proud (*"had a girlfriend for about 3 and half years, most of the time I have been in prison, feel gutted. I'd like to make my mum, Nan, little boy proud"*) or change a family member (*"my sister has hit the drink, and I would like to help her come off it"*). Related to this sub-theme is that of wanting family members to improve their health: *"Think my mum needs help for her drinking, but she also has cancer and keeps going to the pub rather than having hospital treatment".*

The three sub-themes of the last theme, better intimate relationships, are all very simple. Most people wanted to settle with an existing partner, *"I would like to marry my girlfriend"*; fewer wanted to settle with a new partner: *"I split with my girlfriend of 7 years as I kept hurting her. I would like another girlfriend, but not yet"*. A very small number of concerns were raised about not wanting to settle down: *"Split up with ex 'cos came in here. Was seeing ex's friend too, shouldn't have done that. They want me back, I don't want them. Would like to be on my own when I get out"*.

### *Education and training*

There were a total of 95 concerns in this area but, again, two concerns did not fit with any of the existing themes or comprise a new theme. Thus they are not accounted for here. One of these concerns detailed plans to change

career, and the other was concerned with wanting to use the qualifications he already possessed.

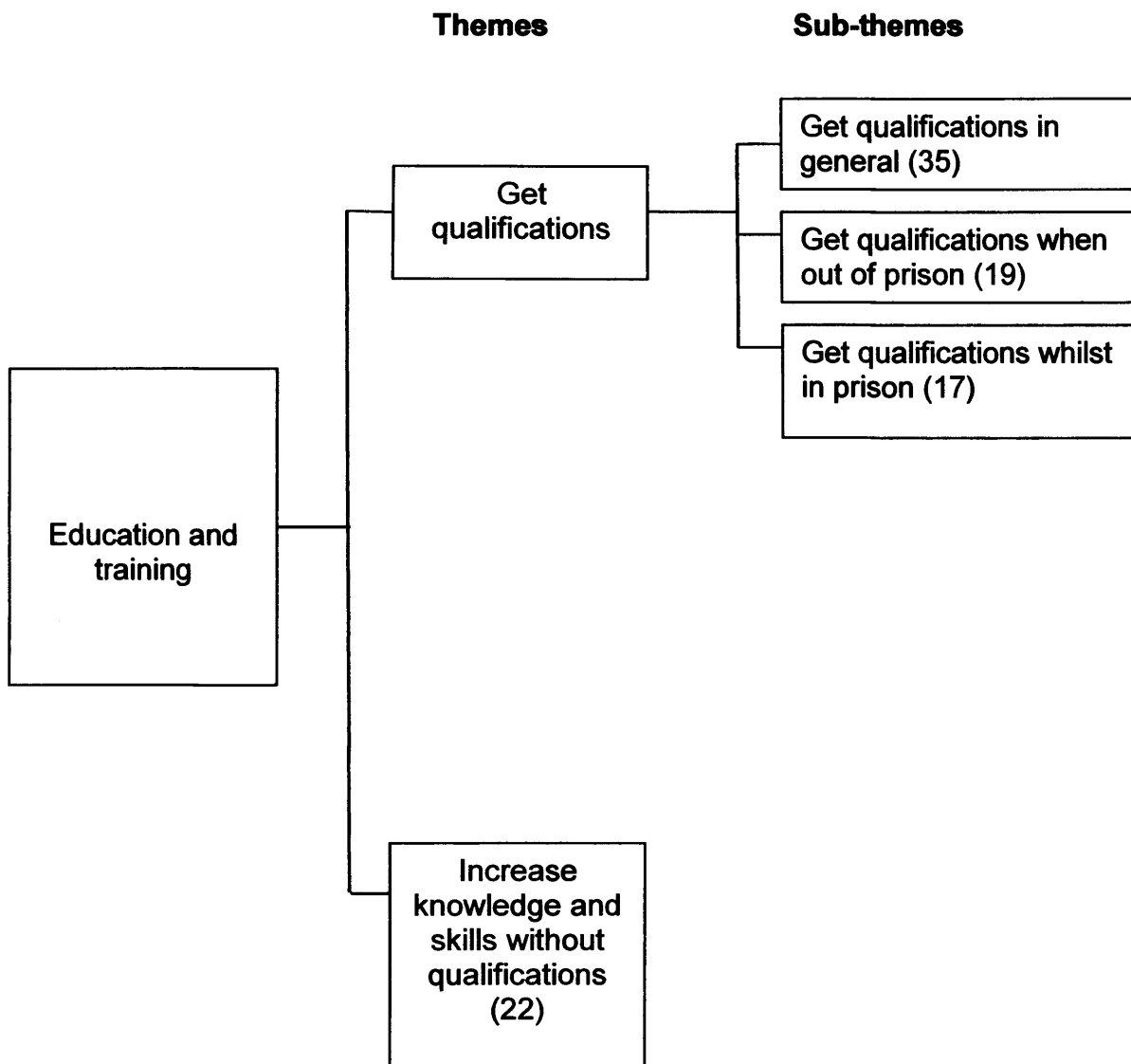


Figure 4.

Themes and sub-themes in the Education and training life area.

Figure 4 shows the themes and sub-themes in this life area. The majority of concerns raised in this life area are found in the theme of 'get qualifications'.

Most participants wanted to get qualifications, although did not specify where



they wanted to do these qualifications (either in prison or at college once out of prison), and what qualifications they would like to complete: *“Do more qualifications...keep options open”*. Others were more specific, and approximately equal concerns were raised about completing qualifications outside of prison (*“Was going to go to college but coming in here stopped that. Would like to go to college and do business or finance”*), and in prison (*“I’ve done lots of courses. Want to do as much as possible in here, and I would like to study for an OU degree”*). The final theme reflects those participants who didn’t necessarily want to complete qualifications, but wanted to study a topic or improve their literacy: *“Would like to learn to play the piano, I have one”; “I read and write a bit, but I would like to start learning properly”*.

#### *Home and household matters*

There were a total of 89 concerns in this area, but three concerns could not be classified into themes. These concerns were related to: a desire for support from someone who wasn’t in authority; anxiety about a girlfriend’s ex-partner, and a desire for a family member to get rid of their pet. The majority of concerns raised in this life area can be grouped under the theme of home ownership, shown in Figure 5. Most participants wanted a place of their own; a subset of these people wanted to move out of their area in the process: *“Living in girlfriend’s area. I still bump into people associated with crime. I’d like to move out of the area when I have the money”*. Although a separate theme, considerably fewer participants wanted to return to where they were living before they went to prison: *“I’d like to get my flat back”*, and *“Would like for them [authorities] not to take my house so it’s there when I get out”*.

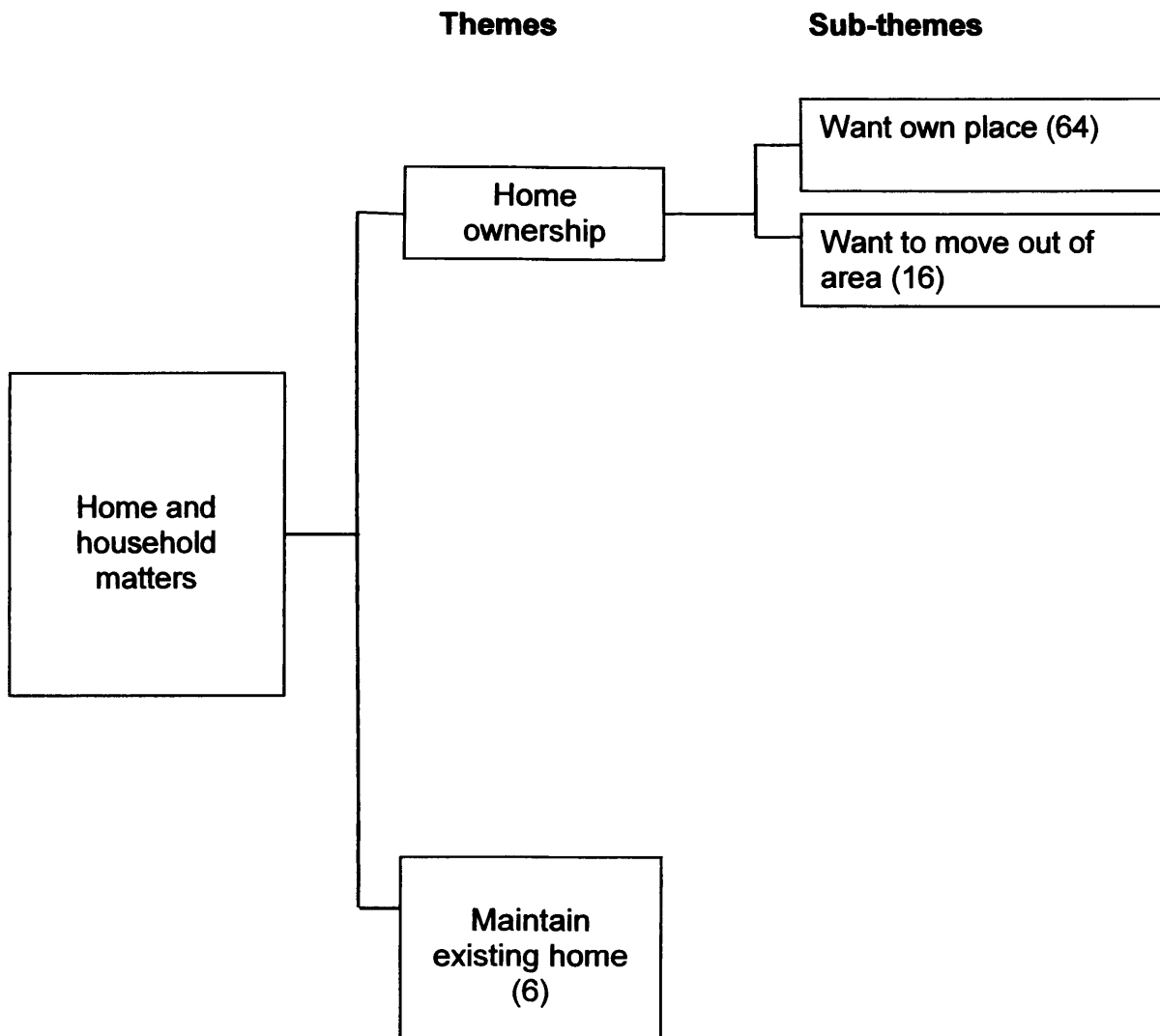


Figure 5.

Themes and sub-themes in the Home and household matters life area.

*Substance use*

As shown in Figure 6, there were three broad themes in this life area: to quit drink/drugs completely: *“Last 25 days something has changed for me. Don’t want to drink when I get out”*; to reduce drink and drugs: *“Try to just use weed from now on”*; and to maintain current usage: *“Previously I was using heroin, cannabis and speed. I got clean in here. Would like to stay off all drugs”*.

Wanting to quit drink and drugs was twice as common as wanting to moderate use and maintain status.

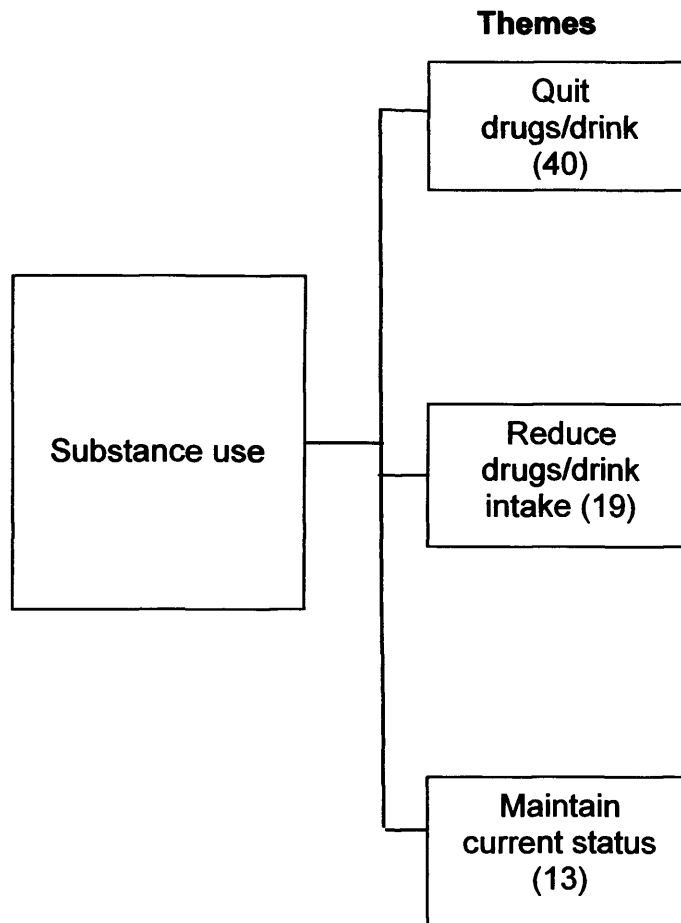


Figure 6.

Themes in the Substance use life area.

### *Offending behaviour*

Although the themes presented in Figure 7 appear very similar, they are quite different. Most participants simply commented that they didn't want to reoffend or come back to prison: *"I'm concerned about reoffending but I would like to not reoffend"*. The remaining participants who raised concerns in this area, under the second theme, detailed how reoffending will be avoided: *"My*

*offending has had a good side because it's made me realise I've got a problem and need to address it. I would like to address my problem with anger and get out"; "Come in on this sentence and I realised I needed to sort my life out..."*

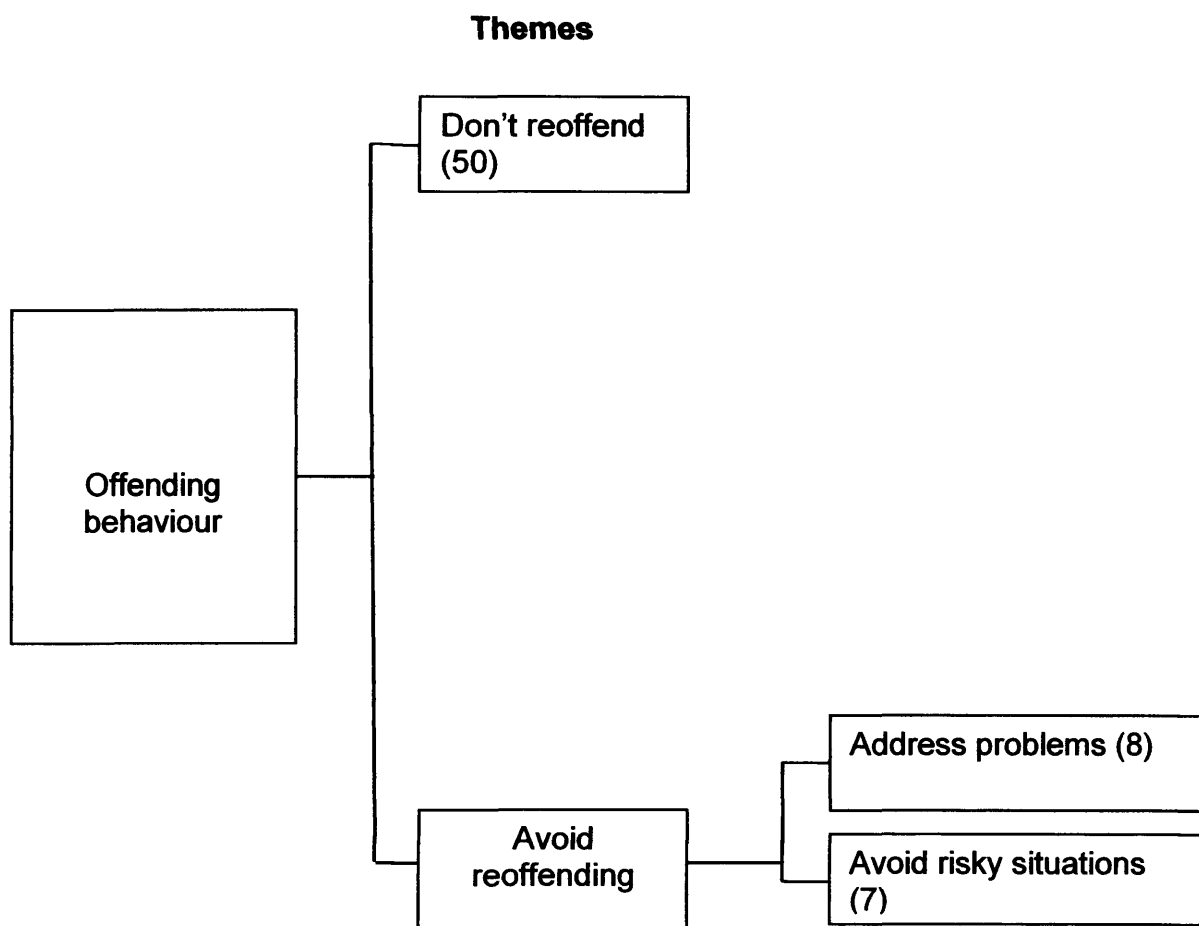


Figure 7.

Themes and sub-themes in the Offending behaviour life area.

## Friends and acquaintances

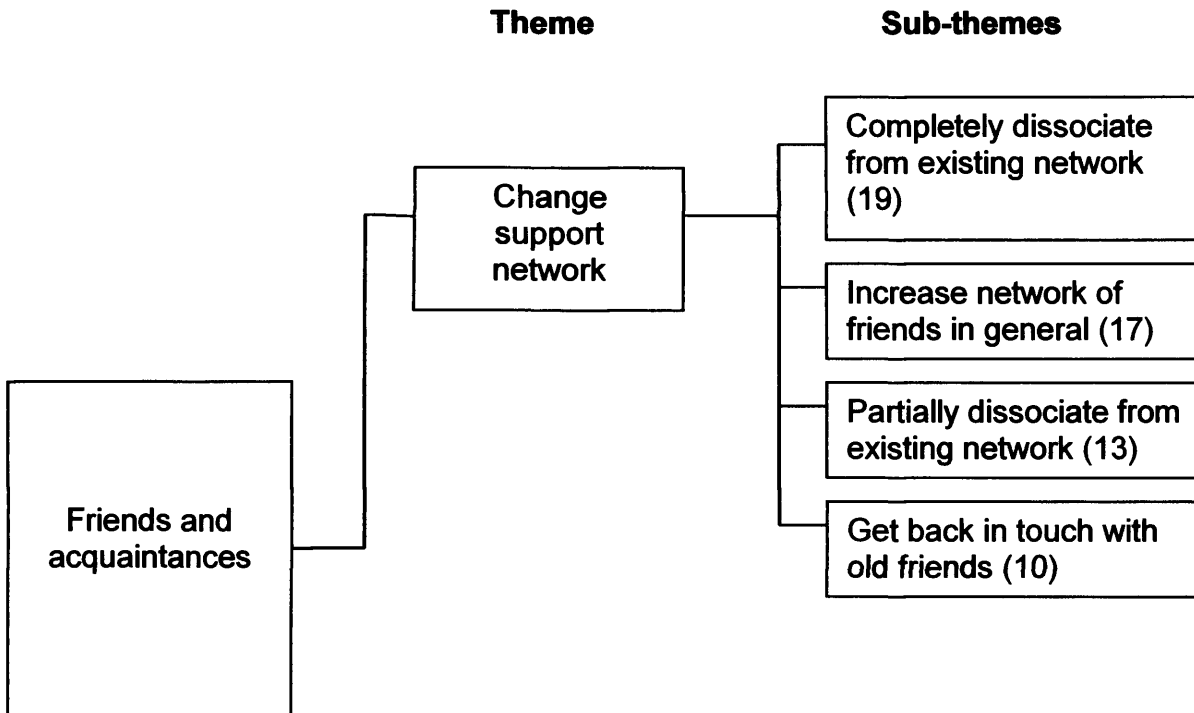


Figure 8.

Theme and sub-themes in the Friends and acquaintances life area.

There was only one theme in this life area, shown in Figure 8: Change support network. The majority (by only a small amount) of concerns in this life area described participants' desires to cut ties with old friends or acquaintances completely. These concerns tended to be phrased in an avoidant manner. Some examples include: *"Would like to leave my friends behind. I've got to say no to them..."*, *"I would like to stay away from people I get in trouble with"*, and *"I can count my true friends on one hand. I would like to get rid of all my acquaintances"*.

The next most common theme was one of wanting to make new friends. As one participant put it: *"I don't want to do that crap [drugs] anymore. I'd like a new set of friends."* Another more simply said: *"I want to meet decent friends, not acquaintances"*. Some participants didn't want to completely dissociate from old friends, but wanted to limit their contact with them: *"I'd like to get to know these friends [who I drink with] again, without alcohol being a part of my life"; "I'd like to be able to see friends who take drugs, but not get involved daily though"*. The final sub-theme was that of getting back in touch with old friends: *"Get my old friends back, ones I had before I started using heroin"*.

#### *Health and medical matters*

There were a total of 54 concerns in this area shown in Figure 9, but one concern was about an ill family member, which does not fit with any of the themes. Therefore it is not included in this analysis. The themes and sub-themes here are very simple. Improve mental health, a sub-theme of improve health, reflects concerns about Huntington's disease, anxiety and paranoia: *"Got issues 'cos of drugs, but Zispin is helping. But I'd like to get rid of irrational thoughts as I know they're not real"* and *"Get panic attacks; I'd like help with my nerves"*, and *"I don't want to go mad while I'm in prison (get locked up in a mental home)"* are three examples.

Participants had a variety of physical ailments: *"My shoulder is extremely painful and damaged"; "I'd like my teeth and spots done"; "I'm Hepatitis C positive. I was seeing a professor about it, but then I came back here"*. No matter what the ailment, from minor to major, all participants raising such concerns wanted proper medical treatment. The final sub-theme comprised

concerns mostly where there was a history of family illness, and the participant was keen to get a check-up to ensure they were fit and well: *“Lots of heart attacks and cancer in my family. I’d like a full check-up when I get out”*.

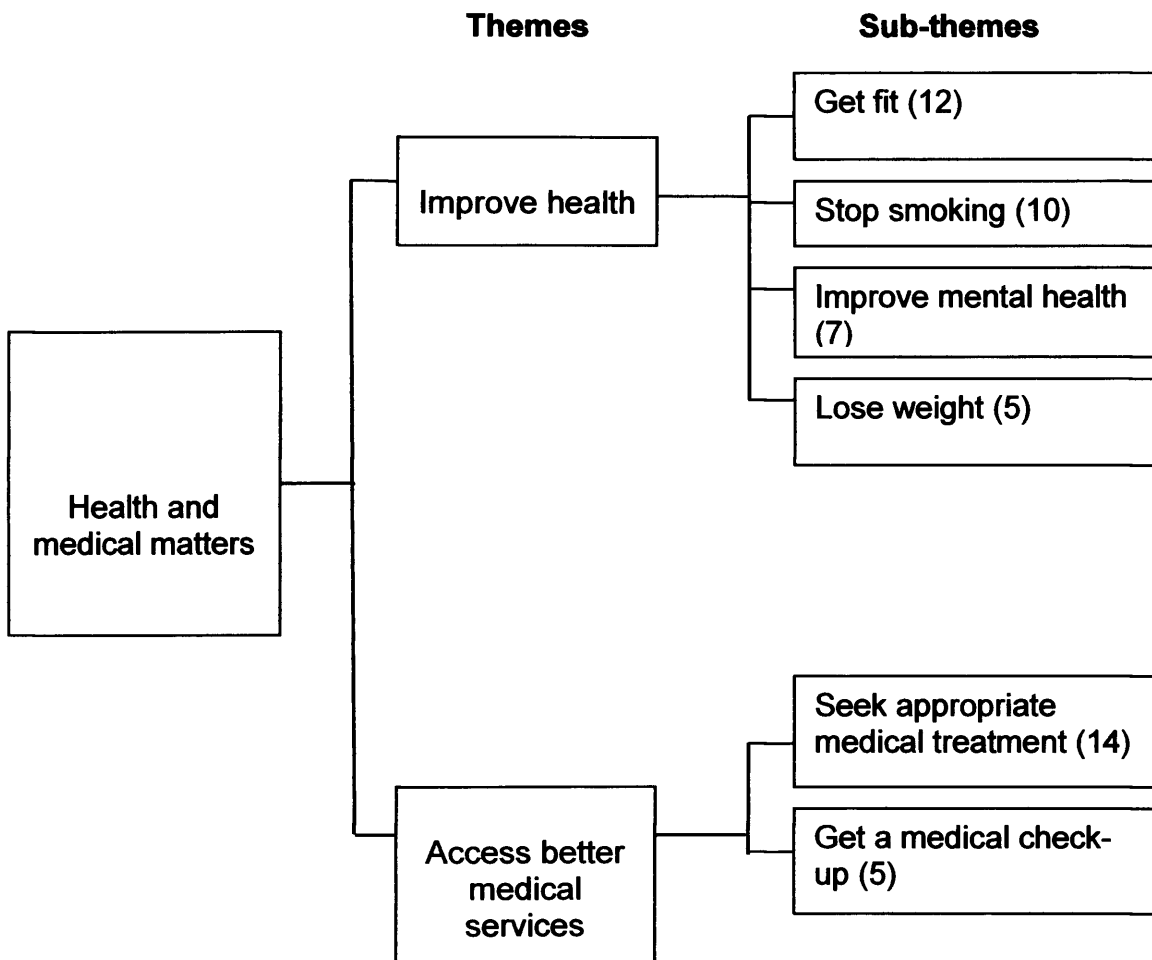


Figure 9.

Themes and sub-themes in the Health and medical matters life area.

### *Hobbies and pastimes*

Most participants wanted new hobbies, or wanted to increase the number of different types of hobbies, as shown in Figure 10. Hobbies ranged from relaxing at home with family, to rugby, skating and other sports: *“I play*

*rugby in here, and I'd like to take up rugby [outside prison]*". Some participants didn't list a particular hobby, simply stating they: *"Would like some new hobbies"*.

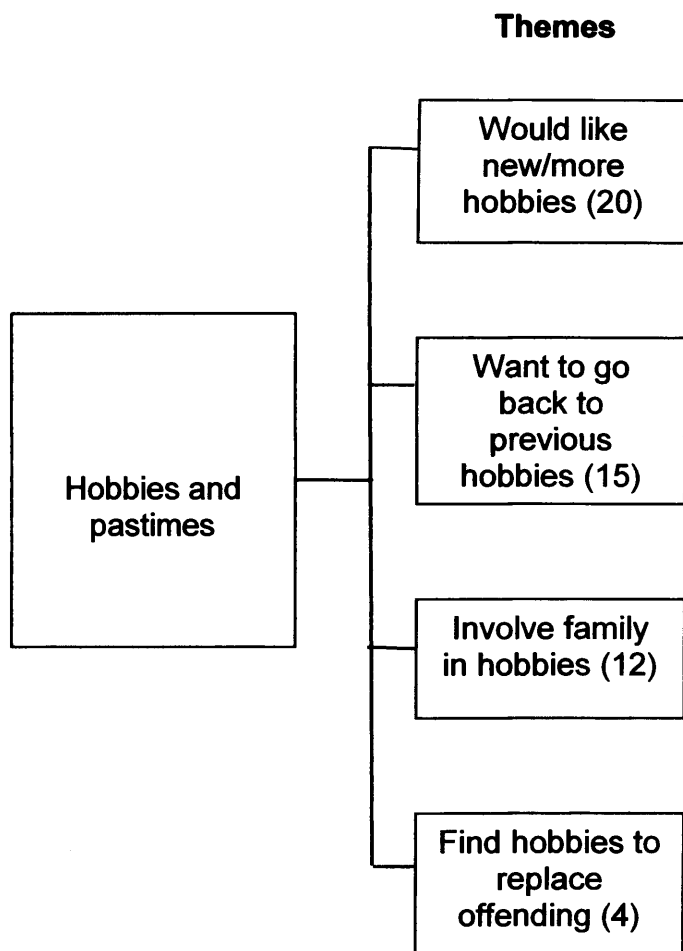


Figure 10.

Themes in the Hobbies and pastimes life area.

Some participants were happy to return to hobbies they previously engaged in. However, there were some participants who wanted to involve their family in their hobbies more: *"I'd like to take my daughter to more places she'd enjoy"*; *"I'd like to watch Liverpool play football against Everton with my dad"*.



The final theme encompassed concerns that were about replacement hobbies for offending: *“I’d like to do some martial arts to keep me busy so I’m not doing drugs...”*; *“If I’m unsure or bored I’m more likely to take drugs. I’d like to find new activities to occupy my time”*.

**Current living arrangements**

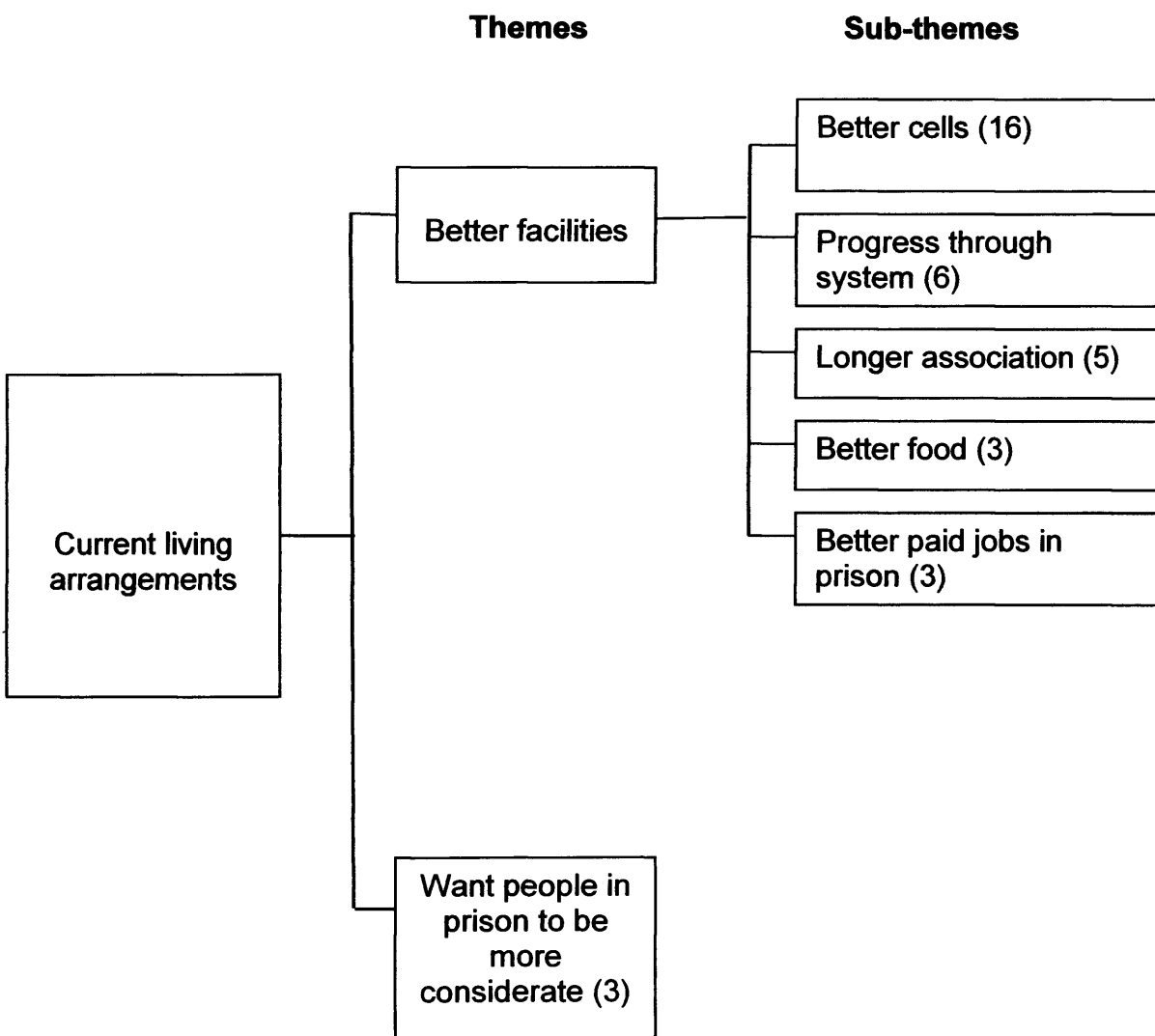


Figure 11.

Themes and sub-themes in the Current living arrangements life area.

Five concerns did not fit within the existing themes shown in Figure 11 and did not constitute a theme of their own. These were related to: kit change, better visiting facilities, and concerns about life outside prison. These are not included in this analysis. Most participants wanted better facilities, whether that was a better cell, better facilities at lower category prisons, longer periods of time out of cells, better food, or better paid jobs in prison.

*"I would like a single cell on an enhanced wing".*

*"Hoping to get to Cat C next year...think I've got a good chance".*

*"Banged up at 3.30pm on a Saturday. I'd like longer association at the weekend".*

*"I'd like better food and more of a variety".*

*"I wanna move to an English prison because of the good money [for jobs in prison]".*

The final theme was not so much concerned with facilities in prison, but the social environment. One participant commented that he would like to *"to not get into fights"*, whereas another complained about the need for a minimum volume for hi-fis. However, this theme was not nearly as prevalent as 'better facilities'.

#### *Love, intimacy and sexual matters*

The themes in this life area shown in Figure 12, are very simple, and there were more concerns about settling with a new partner (for example: *"Get out of prison so I could start!"* and *"Previously I was jack the lad, but I would like to settle down. All my mates have and I don't want to end up lonely"*) than an

existing partner (maintain relationship): *“I miss my girlfriend and would like to be able to get out and see her”*. However, some participants wanted neither of these, and preferred to improve their existing relationship: *“Change my attitude towards my missus, spend more time with her”*; *“My current partner is the only one I haven’t cheated on... I would like to keep hold of my love with my partner”*.

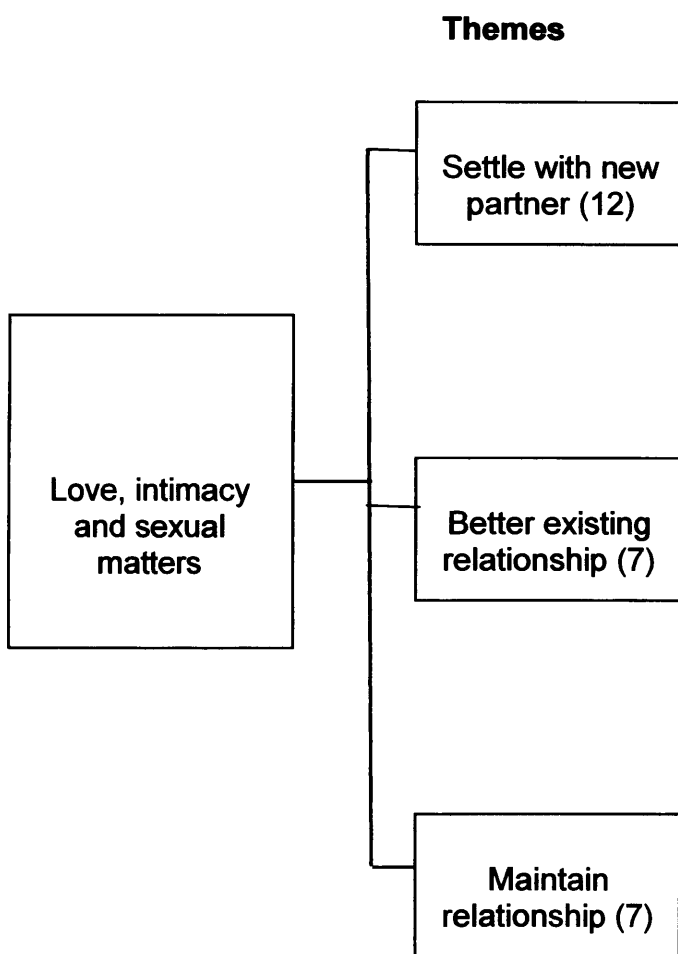


Figure 12.

Themes in the Love, intimacy and sexual matters life area.

*Spiritual matters*

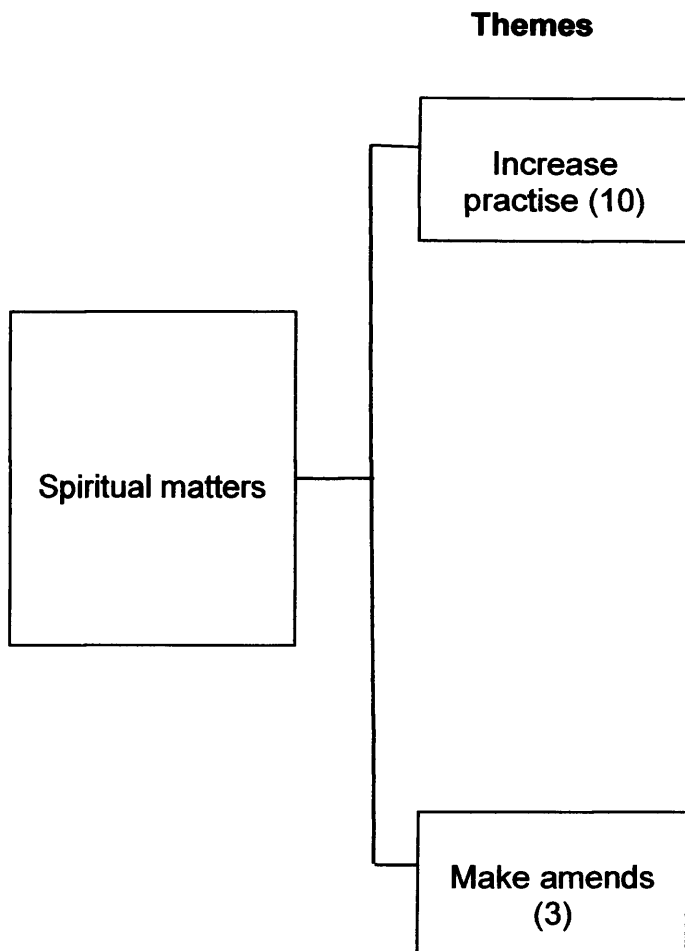


Figure 13.

Themes in the Spiritual matters life area.

The majority of concerns in this life area, shown in Figure 13 related to practising religion more often: *“I would like to carry on with Church when I get out”* and *“I would like to become more of a practising Muslim”* are two examples. Cited about two thirds less than this was the desire to make amends via God: *“I’ve done a lot of bad things and I would like to make amends”*.

Other

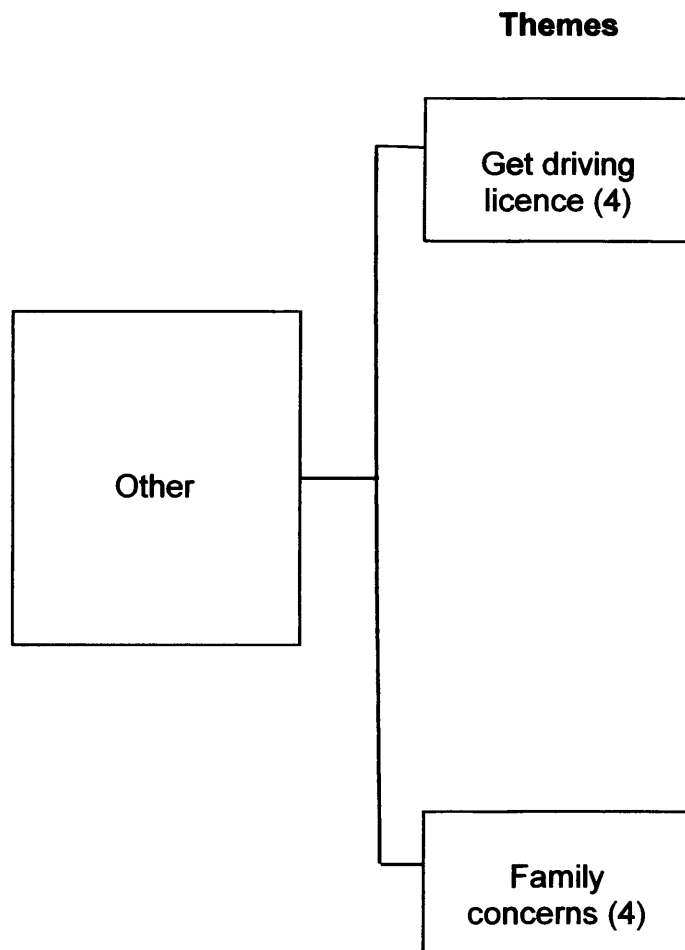


Figure 14.

Themes in the 'Other' life area.

Four concerns could not be classified into the existing framework shown in Figure 14. These concerns related to engaging in charity work, hobbies, and progressing through the prison system, and progressing through life. These are not accounted for above. Few participants recorded concerns in this life area, but those who did tended to discuss concerns about getting a driving licence, for example: *“Previously I had no car and no licence, but I would like to get my*

*driving licence*". In addition, family concerns were recorded here if participants felt they didn't belong in the Partner, family and relatives life area: "My ex girlfriend's new boyfriend smokes weed, and I would like to know for a fact he's not smoking in front of my daughter".

## Discussion

Many themes within the data have been identified. These themes can be viewed within the framework of What Works for offenders. Indeed many of the themes identified in this analysis can also be found in empirical literature detailing what criminogenic factors predict reoffending. For example, Andrews and Bonta (2003) commented that possessing antisocial/pro-offending cognitions, associating with others who have such attitudes, and personal achievement, are all dynamic risk factors that should be addressed in treatment for offenders. These themes appear in this qualitative analysis. For example, in Friends and acquaintances, the 'change support networks' theme is equivalent to the need of relatedness. In Self-changes, the 'better lifestyle' theme can be viewed as equivalent to the needs of inner peace and spirituality. In the Education and training life area, the 'get qualifications' theme is equivalent to the need of excellence in play and work. Furthermore, Gendreau, Little and Goggin (1996) identified risk factors for future offending that are synonymous with those themes identified here: family factors, associating with antisocial peers, poor social achievement and a history of substance abuse. Thus, the qualitative findings presented here are supported by the empirical literature about risk factors for reoffending, providing support for the use of the PCI:OA to identify concerns that, if targeted, may reduce recidivism. Similar to Lewis et al.

(2003), prisoners most often cited concerns in the areas of 'Self-changes', 'Employment and finances' and 'Partner, family and relatives'; these areas tended to have concerns related to increasing problem-solving and improving assertiveness skills, and seeking stability within home life. The PCI:OA can convincingly tap concerns that have, in the literature, been associated with offending; using the PCI:OA with offenders in this sense seems justified.

SMC, therefore, is an option for offenders, either as a motivational pre-programme intervention, or to supplement existing rehabilitation work. SMC uses the goals identified in the PCI:OA as a framework for therapy, and involves assessing a participant's motivational structure, with a view to identifying any maladaptive motivational patterns and restructuring this to allow more adaptive ways of achieving goals (Cox & Klinger, 2004c). In re-structuring the maladaptive motivational pattern, it is hoped that old 'antisocial goals' can be relinquished, and new, 'prosocial' goals initiated, by resolving conflicts between goals, moving from an aversive to an appetitive lifestyle, and considering sources of self-esteem.

The themes highlighted in the analysis appear to complement those of the Good Lives Model. For example, excellence in play and work is supported by the theme *better lifestyle*, where participants want to achieve a happy and fulfilling life (Self-changes), and *get qualifications*, for example, achieving the qualification required to enable training to achieve their desired job (Education and training); life is supported by the theme of *settle down*, in that participants want to be part of a mutual loving relationship with a significant other (Partner, family and relatives), and inner peace is supported by the theme of *want family*

*to get along*, where the goal is to have a harmonious home life (Partner, family and relatives).

It must be acknowledged that the themes established reflect the life areas of the semi-structured interview used. Although the life areas are required to structure participants' responses, they are also a major influence on the themes constructed. In addition, this analysis focuses on adult males, and this arena would benefit from analysis of qualitative data in samples of adolescents, and females. Future research could also investigate whether factors such as ethnicity, risk, and offence type influence the concerns generated (for a full list, see McMurrin & Theodosi, 2004). Further study of goals' stability (how goals change over time) would provide evidence for reliability of goal pursuits and inform about goal achievement and disengagement as set out in TCC.

In summary, the findings presented here suggest that the PCI:OA is a relevant measure of offenders' concerns, and that SMC is a viable intervention that may be used with offenders, whether as a standalone intervention, or supplementary to other rehabilitation programmes. In addition, this analysis has provided tentative support for the GLM of offending (Ward & Brown, 2004).



## Chapter 8

### The PCI:OA: An effective intervention for enhancing motivation?<sup>1</sup>

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#### Summary

Although previous chapters have detailed how the PCI:OA can measure offenders' motivation to change, the issue about whether the PCI:OA is a measure of motivation or a motivation enhancement tool has not been addressed. In this pilot study the PCI:OA was further adapted for refusers of sex offender treatment (PCI:OA (TR)). Sex offenders refusing a place on a sex offender treatment programme are estimated to make up about half the prison sex offender population in England and Wales. It is important to motivate refusers to participate in treatment to reduce the likelihood of their reoffending. The effectiveness of the PCI:OA (TR) with 9 prisoners refusing sex offender treatment (the treatment group) was compared with 9 refusers who did not receive the PCI:OA (TR) (the comparison group). The treatment group were 4.4 times more likely to show a positive motivational shift towards sex offender treatment compared with the untreated group. The PCI:OA (TR) has potential to motivate entry into treatment, but additional testing, with larger samples, is recommended. The possibility of a group PCI:OA (TR) was also highlighted. This area of research is very much in its infancy and further research is required.

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<sup>1</sup> This work is in press: Theodosi, E., & McMurrin, M. (in press). Motivating convicted sex offenders into treatment. *British Journal of Forensic Practice*.

## Introduction

The PCI:OA has been reported as a measure of offenders' motivation to change. However, as reported in Chapter 3, some prisoners found the PCI:OA useful in helping them to break down large, insurmountable goals, into smaller, more manageable goals. The TCC states that the value of a potential goal, and the perceived chances of achieving it, is key determinants of choosing a goal, and the PCI:OA allows for consideration of these factors, in turn facilitating goal choice. The aim of this chapter is to investigate the motivational effects, if any, of the PCI:OA. In order to do this, sex offenders who were refusing treatment were selected as a sample, using the PCI:OA to motivate these offenders into treatment.

Some meta-analyses of outcome studies of sex offender treatment programmes have provided evidence that sexual offending recidivism can be reduced by treatment, particularly cognitive-behavioural interventions (Gallagher, Wilson, Hirschfield, Coggeshall & MacKenzie, 1999; Hanson et al., 2002; Lösel & Schmucker, 2005). However, this evidence is by no means typical, and there remains controversy as to the effectiveness of sex offender treatment on recidivism, with some studies finding treatment to be ineffective (e.g. Hanson, Steffy & Gauthier, 1993). This is compounded by the fact that only detected recidivism can usually be analysed, and self-report methods may not be the most accurate in terms of elucidating sex offender reoffence rate. Despite the debate in the literature, some evidence supports the continuation of treatment programmes for sexual offenders in correctional settings, although it is not known exactly for which sex offenders, in what settings, and at what time treatment may be optimally completed (Grossman, Martis & Fichtner, 1999). Taking the stance that sex offender treatment has

been proven to reduce reconviction at least some of the time, if sex offender treatment is to work, then offenders need to participate in the treatment offered. Some offenders refuse to participate and one challenge for services is to encourage these offenders to take up the treatment on offer.

There is evidence that treatment refusers reoffend at a rate similar to untreated offenders. Worling and Curwen (2000) compared completers ( $N = 58$ ) of their adolescent sex offender treatment programme with non-completers ( $N = 27$ ), untreated comparisons ( $N = 46$ ), and treatment refusers ( $N = 17$ ). Charges for a sexual offence at 6 years were highest for non-completers (26%), followed by refusers (18%), untreated (13%), and then completers (5%). Marques, Day, Nelson and West (1994) compared male psychiatrically-detained sex offenders who completed sex offender treatment ( $N = 98$ ) with untreated matched comparisons ( $N = 97$ ), treatment refusers ( $N = 96$ ), and treatment non-completers ( $N = 8$ ). At follow-up an average of 34 months after release, the highest sexual reoffence rate was observed for the non-completers (38%), followed by refusers (13%) and the untreated group (13%), with fewest completers reoffending (8%). If treatment refusers can be persuaded into treatment, then it is possible that they may do as well as treated offenders.

In England and Wales, convicted sex offenders refusing a place on a prison sex offender treatment programme are estimated to constitute 52% of the sex offender population (Offending Behaviour Programmes Unit, 2002). With 6147 convicted sex offenders currently in custody in England and Wales (National Offender Management Service, 2005b), potentially 3196 sex offenders may be refusing treatment. HM Prison Service is committed to addressing resistance and denial and the National Sex Offender Strategy

(Offending Behaviour Programmes Unit, 2002) contains a list of methods that may be effective in overcoming resistance to treatment. One of the recommendations in the report is that '...staff could explore each individual offender's goals, beliefs, motivation to change, and concerns about treatment' (Offending Behaviour Programmes Unit, 2002, p. 59). The PCI:OA fits this remit. It may be that through completing the PCI:OA, factors preventing engagement can be identified and resolved. In this pilot study, the effect of an adapted PCI:OA for treatment refusers, the PCI:OA (TR), on imprisoned sex offenders was examined. The hypothesis was that more of those who received the PCI:OA (TR), compared with those who did not, would show a motivational shift towards participating in treatment.

## Method

### *Participants*

Participants were convicted adult male sex offenders serving prison sentences in HMP Usk, a special prison for sex offenders in Wales, UK. The study was approved by HM Prison Service's Area Psychologist for Wales and the Prison Governor. The National Sexual Offender Strategy (Offending Behaviour Programmes Unit, 2002) acknowledges that offenders may refuse treatment either because they deny their offences or, if they admit their offences, refuse treatment for other reasons. 'Deniers' and 'non-denying treatment refusers' were selected in accordance with definitions in the Strategy.

There were 244 prisoners in HMP Usk on 1<sup>st</sup> February 2005, of whom 5 were excluded as non-sex offenders. Since the aim was to encourage people into treatment, 67 were excluded because they had insufficient time to

complete a sex offender treatment programme before release. Of the remaining 172 prisoners, 114 were treatment accepters, 48 were deniers and 10 were non-denying treatment refusers. Non-denying treatment refusers were approached initially, of whom 7 (70%) agreed to participate. Eleven (23%) deniers were then randomly recruited by identifying every other listed denier to achieve a total sample of 18 for the study. Five deniers refused to participate. Of the 7 refusers and 11 deniers, every other listed participant was allocated to treatment or comparison conditions, giving 5 deniers and 4 refusers randomly allocated to receive the PCI:OA (TR) and 6 deniers and 3 refusers to the no intervention comparison group.

Table 1 shows the demographic information for the groups. All participants were White British men, and all men had sexually offended against children, except one participant in each group who had offended against an adult.

### *Measures*

*University of Rhode Island Change Assessment (URICA; McConaughy, Prochaska & Velicer, 1983).* The URICA and the theory underlying it were described in Chapter 5, but the URICA will be summarised here. The URICA is a measure of stage of change in psychotherapy, and is seen as the gold standard in motivation assessment, despite recent criticisms about its conceptual framework (Casey, Day & Howells, 2005; Sutton, 2001). The URICA consists of 32 items, eight measuring each of the four stages proposed in the original Stages of Change Model: Precontemplation (P), Contemplation (C), Action (A) and Maintenance (M; Prochaska & DiClemente, 1983).

Table 1.

Participant information.

	Treatment group (N = 9)	Comparison group (N= 9)
Age in years	46.9 (16.0)	45.7 (9.9)
Age left full time education	16.9 (2.9)	15.8 (0.8)
Marital status - single	6	8
Employed	7	8
Age first convicted	34.3 (18.1)	30.4 (18.8)
Time in years since first conviction	12.7 (20.0)	15.5 (14.1)
Length current sentence (months)	76.3 (38.2)	71.3 (24.5)
Months left to serve	26.8 (17.3)	28.3 (18.6)
Total number of convictions *	4.3 (4.5)	24.9 (51.2)
Total number of offences *	4.6 (2.6)	32.9 (63.1)

*Note.* S.D in parentheses. \* All offence types.

Items are rated by participants on a 5-point Likert scale, from strongly disagree (1) to strongly agree (5). Items are summed to give a score ranging from 8-40 on each subscale, with lower scores on the P scale being more desirable than higher ones, and higher scores more desirable on the C, A and M scales. Here, in line with Prochaska, DiClemente and Norcross (1992), the highest scale score was used to determine stage of change. If top scores were equally high on C and A scales, individuals were classed as being in the Preparation (PA) stage; if a participant scored equal top on any other scales, whether adjacent or not, they were taken to be in the more advanced stage of change (Heather, Rollnick & Bell, 1993).

***Motivational shift.*** Motivational shift was assessed with reference to the accredited Sex Offender Treatment Programme (SOTP). Positive shift was identified when the offender, at follow-up: (1) was recruited to SOTP; (2) had requested to go onto SOTP; (3) expressed a need for further advice or information regarding access to SOTP (and was not known to have done so previously); or (4) if the participant was a denier, they admitted their offence. No shift was defined as maintenance of denial or treatment refusal at follow-up. Staff were blind to who had received the PCI:OA.

***The Personal Concerns Inventory: Offender Adaptation for Treatment Refusers*** (PCI:OA (TR); see Appendix 7). Although the development of the PCI:OA was covered in Chapter 3 and fully described in Chapter 4, the PCI:OA was further adapted for this population of treatment refusers – the PCI:OA (TR). First, the question about how offending behaviour impacts upon goal attainment was changed to how conviction for an offence impacts, thus avoiding a debate about guilt or innocence. Denial inevitably would feature as part of the qualitative aspect of the PCI:OA (TR), despite only asking about conviction. Second, the question about the impact of imprisonment on goals was changed to how participation in treatment programmes might impact, with the aim of encouraging participants to consider opting into treatment.

PCI:OA (TR) scores were converted into a Readiness to Commit Index (RCI) for each member of the treatment group at initial testing and follow-up (the comparison group did not complete the PCI:OA (TR)). To summarise from Chapter 5, RCI is calculated according to the formula:  $\text{Commitment} - \sqrt{(\text{Value} * \text{Expectancy})}$ , where Value equals the score on the Happiness scale

minus that of the Unhappiness scale, and Expectancy is equivalent to the score obtained on the Likelihood scale.

### *Procedure*

The nature of the study was explained to participants, and they completed a consent form upon agreeing to take part. Information was collected on age, level of education, marital status, employment status, index offence, and previous convictions. Participants were interviewed individually by graduate researchers in classrooms within the prison's Programmes Unit. After collecting participant information, treatment group participants completed the URICA followed by the PCI:OA (TR) interview, and comparison group participants completed the URICA only. Participants completed the URICA either independently or by having the questionnaire read aloud, depending upon literacy. The PCI:OA (TR) was conducted as an interview in each case.

Interviews for those in the treatment group typically took 2 hours 30 minutes (range 2 to 6 hours) and interviews for the comparison group took approximately 30 minutes. Follow-up interviews were conducted approximately 2 months after initial interviews, when the treatment group again completed both the URICA and PCI:OA (TR) and the comparison group completed the URICA only. No intervention was administered in the interim period.

### **Results**

*URICA.* Seven of the treatment group completed the URICA at both initial assessment and follow-up; 1 participant refused at initial testing and another at follow-up, the latter because he wanted to focus on individual



therapeutic work. Table 2 shows that, of the treatment group, 2 participants' stage of change improved from initial assessment to follow-up and 5 showed no change. All 9 of the comparison group completed the URICA on both occasions, with 3 participants' showing advancement of stage of change and 6 participants showing no change.

Table 2.  
Stage of change at initial assessment and follow-up.

	Treatment group		Comparison group	
	(N=9)		(N=9)	
	Initial	Follow-up	Initial	Follow-up
Refusers	A	A	C	C
	A	-	A	A
	C	C	PA	PA
	A	A		
Deniers	-	A	C	A
	C	C	C	A
	C	PA	P	P
	P	A	C	A
	P	P	P	P
		P	P	

*Motivational shift.* None of the 11 deniers admitted to the offence at follow-up. Five of the 9 treatment group participants showed a positive motivational shift towards participation in SOTP, compared to 2 of the 9 comparison group (see Table 3). The odds ratio for positive and no

motivational shift between groups is 4.4 (95% confidence interval 0.6 to 34.0), indicating a greater likelihood of motivational shift in the treatment group. Since the confidence interval does not include zero, this can be interpreted as a positive effect. However, the confidence interval is wide and this result should therefore be interpreted with caution.

Table 3.

*Motivational shift.*

	Treatment status	Treatment (N = 9)	Comparison (N = 9)	Total (N = 18)
Positive shift	Refuser	3	1	4
	Denier	2	1	3
	Total	5	2	7
No shift	Refuser	1	2	3
	Denier	3	5	8
	Total	4	7	11

*PCI:OA (TR)*. Table 4 shows the RCI for all treatment group participants at initial assessment and for 8 participants at follow-up. Six of the 8 participants who completed the *PCI:OA (TR)* on both occasions became more committed to their goals indicated by a positive change in RCI scores, and 2 participants became less committed.

Table 4.

*Readiness to Commit Index scores.*

Participant	Initial assessment	Follow-up	Change
1	-0.05	1.44	+1.49
2	2.05	1.67	-0.38
3	-0.70	1.61	+2.31
4	0.88	-	-
5	0.93	1.03	+0.10
6	0.19	0.58	+0.39
7	1.59	0.84	-0.75
8	0	0.15	+0.15
9	-0.37	-0.05	+0.32

### Discussion

The main aim of this pilot study was to establish whether it was possible to motivate sex offenders refusing treatment to engage in treatment through the use of a motivational interview - the PCI:OA (TR). A positive motivational shift was found, as measured by recruitment to SOTP or expression of a need for further advice or information regarding access to SOTP. Small numbers permit only a conservative estimate of the difference, which is that treatment group members were 4.4 times more likely to have a positive motivational shift than the comparison group. Thus, the hypothesis that more of those undergoing a motivational interview would show a positive shift towards treatment was supported. Obviously, this does not take account

of the fact that participants may not proceed onto treatment, and further studies would be required to explore this.

The positive shift towards treatment was not reflected in progression through the stages of change. Only 2 of 7 treatment group participants and 3 of 9 comparison group participants evidenced progress, all of these being deniers. There were no overall differences between treatment and comparison groups in progression through stages of change, as measured by the URICA. This could be affected by offenders' initial stage of change. The treatment group contained more people in the action stage at initial testing, and movement from action to maintenance would not be expected of offenders pre-treatment. In addition, participants in the treatment group may have gained some insight into their offence as a result of completing the PCI:OA (TR), and movement through the stages of change may not be expected if an offender first comes to terms with the offence, before deciding they would like to do something about it. Some researchers have questioned the validity of the stage model of change (Casey et al., 2005; Sutton, 2001), and there are also questions about whether the URICA accurately measures stage of change in offender populations (McMurrin et al., 1998). Hence, the URICA may not be the best assessment of motivation to change in offenders. This study supports this notion.

Given that the motivational shift was greater in the treatment group, changes in the PCI:OA (TR) scores can be used to give an indication of the nature of these changes. In all but two cases, participants' RCI scores became more positive. Positivity in approaching life's problems is a key aspect of effective social problem solving and good interpersonal functioning (D'Zurilla & Nezu, 1999). The PCI:OA (TR) interview invites offenders to

identify their goals in life and examine how their conviction and refusal of treatment impacts upon these goals; this helps assess a potential goal's value, important in determining whether or not to pursue the goal. This allows participants to contemplate treatment as a positive way of working towards goal attainment. Supporting this notion, 1 participant said the PCI:OA (TR) had allowed him to discuss fears about treatment and another that he was encouraged to be more open about his feelings. The RCI reflects SEU theory, and although goal value and expected chances of success are the major factors influencing goal choice according to the TCC, they are not the only factors. It could be that conditioned behaviours (for example, to take a defensive stance when someone mentions a treatment programme), cognitive biases (over-estimating negative feelings when thinking about attending treatment), beliefs ("treatment doesn't work", "I'm too old to change"), and satisficing (getting on with prison life without taking part in activities that will induce a more desirable affective state) are influencing these sex offenders' decision not to engage. For example, when asked about whether treatment will help or hinder a particular goal, 1 participant replied: "it's well known that sex offender treatment doesn't work. The bloke that wrote it was a sex offender himself!" It is highly likely that this belief is, at least partially, obstructing entry into treatment. This supports the use of qualitative data to inform about motivation, corroborating research completed in the previous chapter. However, it is possible that this greater shift in the treatment group reflects the fact that this group spent longer with the researcher (Finger & Rand, 2003). This potential confound requires further investigation.

Despite the fact that the sample here was small, this pilot study has highlighted the potential of the PCI:OA (TR) to enhance motivation for

treatment. The PCI:OA (TR) is a practical motivational tool, well received by offenders, and easy to administer. Although both offenders and staff prefer individual motivational sessions (Offending Behaviour Programmes Unit, 2002), practicality suggests that the development of a group-based version of the PCI:OA might be useful. Meanwhile, this pilot study should be augmented by further investigation of the effectiveness of the PCI:OA (TR) in a larger sample of treatment refusers, with additional emphasis on the role of conditioned behaviours, cognitive biases, beliefs, and satisficing on goal choice, as stated in the TCC.

## **Chapter 9**

### **Discussion.**

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#### **Main findings**

Chapter 1 outlined the main theory underpinning this thesis, that of the Theory of Current Concerns (TCC; Klinger & Cox, 2004a). This is a theory of human motivation, and although based on work carried out in the field of addictions, its potential to be applied to that of offending was highlighted. In Chapter 2, non-completion of offending behaviour treatment programmes was identified as associated with an increased risk of recidivism. Motivation was hypothesised to play a role in non-completion, given previous studies in this area. If motivation is a key issue in offender rehabilitation, then it is important that it should be measured for the purposes of selecting offenders into treatment and monitoring change over time. Thus, Chapter 3 combined the ideas from Chapters 1 and 2, and reported a pilot study of a new measure of motivation to be used with offenders – the Personal Concerns Inventory, adapted for offenders (PCI:OA). The pilot study suggested that the PCI:OA was practical for use with offenders and the information collected seemed to mirror the structure of the original PCI. Hence, further examination of the PCI:OA was warranted.

In Chapter 4, the psychometric properties of the PCI:OA were further examined. Support for the construct validity of the PCI:OA was provided in that, excluding the PCI:OA offending and prison rating scales, a similar factor

structure to that found with non-offender populations was found here with offenders. This suggests that the PCI:OA measures issues relating to motivation to change offending in a similar way to people using substances who wish to change their drinking or drug use. When entered into the analysis, the PCI:OA offending and prison rating scales formed a separate factor, along with Knowledge about how to attain goals. This may indicate that prison programmes and services may be able to help some prisoners attain life goals.

Limited concurrent validity of the PCI:OA was reported in Chapter 5, with the PCI:OA correlating poorly with the URICA, TMQ and staff ratings. However, it was acknowledged that there are problems inherent in using the URICA and the TMQ, in that each measure has a different theoretical underpinning which has implications for the comparability of findings from these measures. Furthermore, staff ratings of an internal state such as motivation may not be valid; the very point of developing the PCI:OA was to improve on simple ratings. Chapter 6 concerned predictive validity. First, a comparison in reconviction rates was made between the treatment and comparison group which indicated that the treatment group was less likely to reoffend. Second, some differences between the treatment and comparison groups were found on the PCI:OA. Looking at differences in rating scale scores, the treatment group rated the mean likelihood of goal achievement higher than the comparison group at both initial assessment and at follow-up. At follow-up the treatment group also reported having greater control over goal achievement than the comparison group, and over time, treatment group scores on the Control rating scale increased. Some scales, therefore, may



have the ability to predict who is likely to engage in treatment and others may have the ability to measure change as a result of treatment. Third, the PCI:OA adaptive and maladaptive factors did not predict reconviction at mean 234 days post-release. The PCI:OA may predict treatment engagement, which in turn predicts reconviction, which would indicate that motivation to change is not enough to predict reconviction but needs to be combined with treatment to effect change.

In Chapter 7, a qualitative description of prisoners' current concerns was presented in order to complement the quantitative studies. Clear themes were identified, including those associated with self-control, getting a job, increasing family coherence, getting qualifications, obtaining a home, quitting substance use, quitting offending, changing support network, improving health, investing in new hobbies, improving prison facilities, settling with a new partner, and increasing practise of religion. Overall, prisoners wanted to better themselves, no matter in what area concerns were raised. The themes generated corroborate the literature about What Works for offenders, in that prisoners' goals for change were consistent with the targets for treatment identified as relevant to crime (Gendreau, Little & Goggin, 1996). The themes generated were also consistent with the primary goods of the Good Lives Model (GLM; Ward, 2002; Ward & Brown, 2004). Hence, it can be concluded that the PCI:OA can tap issues relevant to offenders.

Chapter 8 addressed the issue of the PCI:OA as a motivation enhancer. In using the PCI:OA with prisoners, experience suggested that the PCI:OA enhances motivation to change by helping participants to break down their goals into smaller, more manageable goals. This chapter reported the

findings of a pilot study with sex offenders refusing treatment, where the aim of the intervention was to facilitate entry into treatment. A modest effect was found in the desired direction.

### **Limitations and strengths**

#### *Definition of motivation*

As outlined at the start of this thesis, definitions of motivation are varied, and some studies about motivation fail to define the concept clearly before reporting findings. Although the definition of motivation has been clearly defined here, it is inevitable that this study will not be comparable to others, given the variety of definitions that exist. The work presented here will be comparable to studies using the PCI, but not necessarily to studies of offenders' motivation to change using other frameworks or test instruments.

#### *Sample*

For the purposes of validation, the aim in this thesis was to recruit a sample of prisoners that would likely include those motivated for change and motivated for treatment, those motivated for change but unmotivated for treatment, and those unmotivated for either change or treatment. Although the subsamples of those in treatment and those not in treatment were not comparable on a number of relevant measures, we did separate these groups' PCI:OA scores for comparison.

Some of those participants who were in the comparison group were a difficult to engage group, or vulnerable prisoners, and this has an impact on

comparability. Looking at those participants that were included in the survival analyses in Chapter 6, for example, the treatment group had significantly longer sentences and longer left to serve, when compared to the comparison group. The comparison group on the other hand had a significantly greater number of youth custody sentences, court appearances, convictions, and total number of offences, than the treatment group. These characteristics are relevant here, in that the control group could have been a much higher risk group given the greater number of youth custody sentences, court appearances, convictions and offences. Risk itself was not measured, and this conclusion can not be drawn with certainty, but it is a possibility. In addition, sentence length has been found to be associated with non-completion which has implications for motivation, as outlined in Chapter 2. Lifers were more likely to complete cognitive skills training (Robinson, 1995), and lifers have longer sentences. Schweitzer and Dwyer (2003) also found that completers had significantly longer initial prison sentences than non-completers and controls. Therefore, the treatment group may have been more motivated at the outset of the study.

The information presented is simply indicative of the PCI:OA's potential power to predict who engages and does well in treatment. A robust examination of the PCI:OA's ability to predict who engages and does well in treatment is still necessary. A randomised controlled trial would be appropriate to examine this. However, some participants have to complete a treatment programme as a condition of their sentence, and withholding treatment from these participants to examine the psychometric properties of an assessment procedure would not be ethical. An alternative to a

randomised controlled trial would be to match participants in the treatment and no treatment groups. The literature review in Chapter 2 provides some characteristics that differ between completers and non-completers of treatment programmes, and these could inform for which characteristics participants are matched if non-completion is taken to be indicative of a lack of motivation to change. For example, age, offence type, and level of education were all client characteristics found to differ between completers and non-completers. Any pre-existing differences between groups in this study act as a potential confound. However, where possible, statistical analyses were used that controlled for such pre-existing differences.

The sample here was restricted to one prison of adult males only. Although this was partially for logistical reasons, it does limit how the results can be generalised, i.e. only to adult male prisoners. In addition, the small number of participants involved at follow-up reduces confidence in the validity of any results obtained. Approximately 58% of participants were lost at follow up, and the way to reduce the impact of this is to try to prevent attrition. Here, some prisoners were released before follow-up was completed and others were transferred to another establishment. This could be corrected by only testing participants who are to remain in prison for the duration of the study; however, this would introduce a sample bias towards those with longer sentences.

In Chapter 8 participants were quasi-randomised to treatment and no treatment groups. True randomisation is difficult with a small number of participants (Heiman, 1999), and sample size should be large to prevent differences between groups and to be adequately powered. However, larger

sample sizes may be difficult to obtain unless multisite studies are undertaken. In addition, where assessments have shown potential to motivate participants, as in Chapter 8 of this thesis, it may be unethical to withhold treatment from those who are randomly allocated to the no treatment comparison condition.

Despite these limitations, the study's biggest strength is that research was carried out with prisoners. This means that, overall, it has high validity and generalisability as research was carried out with the population of interest. In addition, by selecting a mix of prisoners who were in treatment and not, factor analysis becomes more reliable. Using heterogeneous samples in factor analysis increases the variance in responses, but also increases factor loadings (Kline, 1994). In an elegant example, Kline (1994) describes the value of selecting heterogeneous groups, as used in this thesis; when investigating academic success with graduates of Oxford and Cambridge with a first class degree, it is unlikely that intelligence would load on academic success because the sample is homogeneous for this variable. Intelligence would not be important, but other factors such as a talent for the subject may be. By sampling a greater range of IQs, intelligence would be likely to predict success (Kline, 1994). The same principle is true here.

### **Implications for the PCI:OA**

#### **A measure of motivation**

Establishing reliability and validity of a measure is an ongoing process (Frick & Cornell, 2003). Therefore, further testing of these properties is

required before it can be concluded with certainty that the PCI:OA is, or is not, valid for use with offenders. Factor analysis of the original PCI scales (i.e. offending and prison scales omitted) led to a two factor solution of adaptive and maladaptive motivation, very similar to those found in previous studies of the original PCI. When two of the four scales particular to the PCI:OA were included in analysis (how does offending help goal attainment and how does prison help goal attainment were the only offending and prison scales that met criteria for inclusion in the factor analysis) they formed a separate factor, along with knowledge about how to attain goals. This indicates that the PCI:OA may have something to offer offenders over and above the original PCI. From experience, some participants found the offending and prison scales useful, but most participants commented that they knew the risks associated with offending and that it perhaps would not help with goal achievement. What these scales may assist with is helping prisoners identify goals that are important enough to them that they are prepared to attain them through offending and risk being sent to prison. From this, alternative ways of attaining these goals so as not to interfere with life in general may be considered. This is similar to the goal conflict dysfunction described in the GLM. Goal conflict is where the pursuit of one goal reduces the chances of achieving another goal, and the rehabilitation strategy is to reduce such conflict. It would be worthwhile conducting larger studies to fully investigate the utility of these offending and prison rating scales.

In studies using the MSQ, Man and colleagues (1998) found differences on MSQ scores between a group of 26 participants who were alcohol-dependent, and 30 demographically similar students. Those

participants who were alcohol-dependent listed 40% fewer goals than the students, were less committed to achieving goals, rated themselves as having less control over goal achievement and appeared to require stronger incentives to pursue goals than the students (Man, Stuchlíková & Klinger, 1998). It would be interesting to see if such differences exist between offender and non-offender samples, and whether these differences can inform about motivation to change offending.

Further, Sciamanna, Hoch, Duke, Fogle and Ford (2000) found that asking a single question about when a participant was likely to give up smoking was just as efficient a way to assess motivation as a questionnaire. Perhaps researchers are generating lengthy questionnaires needlessly, and it may be worthwhile developing a shorter version of the PCI:OA. Abridgement of the PCI:OA would also appeal to practitioners, who have limited resources and time with which to assess clients. The PCI:OA could be further adapted for group administration, something that has already been carried out in Germany (Schroer, Fuhrmann & Jong-Meyer, 2004).

### **A predictor of outcome**

Although factor analysis of PCI:OA structure provides some evidence for validity of the PCI:OA, the adaptive and maladaptive factors did not predict reconviction. Findings here, however, suggest that the PCI:OA may predict treatment engagement and that it is treatment that predicts reconviction. It may be worthwhile to conduct both longer-term and larger studies of reconviction to fully investigate the ability of the PCI:OA to predict

reconviction, but the suggestion is that the effort should focus on the PCI:OA's ability to predict engagement in treatment.

Previous research using the IntQ (Interview Questionnaire, a predecessor of the MSQ; Klinger & Cox, 1986) to predict treatment outcome, which was rated by staff as either successful or unsuccessful, found that IntQ scales predicted those that were successful and those that were not. Relevant scales were related to concerns about wanting to engage in treatment, a lack of concern about avoiding alcohol, and anticipating goal achievement sooner rather than later. In addition, Klinger (1987) found that the IntQ could predict the verbal cues that adults would attend to, recollect, think about, dream about, and register an electrodermal response to, again providing evidence of the predictive ability of measures based on current concerns. This kind of research is viable with the PCI:OA, and would demonstrate whether the PCI:OA is an adequate predictor of treatment outcome.

The PCI:OA may predict entry into treatment and treatment may predict outcome. For example, Chapter 8 of this thesis reports a positive motivational shift for those sex offenders who were refusing treatment, in that they were more likely to seek information about sex offender treatment as a result of receiving the PCI:OA than a comparison group who did not. It is possible that those participants with an adaptive motivation profile may be more likely to enter treatment as these participants see treatment as a vehicle for completing goals. The converse could also be true, in that the PCI:OA predicts that those with maladaptive profiles will enter treatment as they do not have the skills to achieve goals without facilitation, whereas those with an adaptive motivation profile do. The Readiness to Commit Index (RCI) may



also predict treatment entry, for similar reasons to those for motivation profiles; those participants with overcommitted scores could be likened to those with adaptive motivation profiles and those with undercommitted similar to those with maladaptive profiles (Man et al., 1998 found that those participants who were alcohol dependent scored lower on this index). However, it is not known at present what the optimum score of the RCI is (E. Klinger, personal communication, 25 August 2005), and this type of study would further develop this scoring technique.

### **A motivational procedure**

The PCI:OA is potentially a useful way in which to enhance motivation. Indeed, a modest treatment effect was found in the pilot study in Chapter 8, where the aim was to encourage sex offenders refusing treatment to engage in treatment. This result must be treated with caution, however, as only a small number of participants were sampled and the outcome measure of motivational shift was subjective. In the pilot study detailing the development of the offender adaptation of the PCI (Chapter 3), participants commented that the PCI:OA was useful for breaking down large goals into smaller, more manageable goals. It has been reported that people will be less motivated to pursue those goals that take longer to achieve, and so by breaking down goals into smaller, more manageable goals, motivation for these goals will be increased (Emmons, 1999). The PCI:OA is also motivational in that it requires participants to articulate and record their goals. As acknowledged by Emmons (1999), those goals that are more concrete, and have plans in place for achievement, are more likely to be achieved. There is no research that details

the motivational aspect of the PCI, rather the therapeutic aspect of the PCI has been developed further as Systematic Motivational Counseling (SMC; Cox & Klinger, 2004c; Cox, Klinger & Blount, 1991). Research into the motivational effect of the PCI:OA is indicated, but the possibility of developing SMC for offenders should also be considered.

### *Systematic motivational counselling*

The PCI has been used as a foundation for SMC, which uses the goals and motivational patterns identified from the PCI:OA as the framework for therapy, in order to direct people to lead more fulfilling and happier lives. Maladaptive motivational patterns as identified by the PCI are the targets of change, and in SMC participants are helped to find better ways in which to resolve their goals (Cox & Klinger, 2004c). The idea, therefore, is that SMC would shift behaviour away from the direction of antisocial behaviour. Cox et al. (2003) sampled 94 participants with head injury who were also abusing substances. Forty of these participants received standard treatment (for example, psychosocial and vocational help) plus 12 sessions of SMC, in addition to treatment for their head injury. The remaining 54 received only standard treatment, plus treatment for their head injury. The Motivational Structure Questionnaire (MSQ; Cox & Klinger, 2004e; Klinger, Cox & Blount, 1995) was used to assess change. Improvements in motivational structure (scores on MSQ rating scales Appetitive Action, Sorrow if no success, and Time available), a reduction in negative affect and a reduction in the use of substances was observed for the group that received SMC, but not the comparison group. Thus, some evidence is provided for the ability of SMC, of

which the MSQ and PCI are the foundation, to motivate participants to lead more fulfilling lives. Although there is currently no motivational counselling associated with the PCI:OA, the potential to develop SMC for offenders is clear. Furthermore, SMC does not have to function as a stand-alone treatment, and can be fitted in with other interventions which the offender may be obliged to complete (Cox & Klinger, 2004c). Therefore, SMC may be a useful addition to the range of offender rehabilitation programmes currently provided.

### **Implications for TCC**

The TCC, as outlined in the overview in Chapter 1, appears to be a logical way to understand offending. The existence of a similar factor structure to that found in student and alcohol-dependent samples can be taken as evidence of the applicability of the TCC to offenders. Furthermore, qualitative analysis of the concerns generated on the PCI:OA demonstrated that it can tap issues relevant to offenders. These support the notion that the TCC may have applicability with offenders.

Although the psychometric properties of the PCI:OA are similar to the properties of the PCI with substance users, this is only an indication that the TCC might apply to offending. However, it is true to say that the PCI:OA could be useful to further investigate TCC with offenders. Further examination of TCC with offenders requires a reliable measure with which to conduct the research. Internal consistency and test-retest reliability for PCI:OA scales and factors are comparable to studies of the original PCI, and in places are better

than the original. The PCI:OA may, therefore be a suitable instrument with which to develop more theoretical investigations into offenders' motivation to offend and motivation to change.

TCC predicts that people will pursue goals with the highest value according to SEU. However, the goals that were being actively pursued were not measured in this study, and this is an important facet of TCC that remains untested. Obviously in prison offending is less likely to occur, but it is possible using the PCI:OA, to assess the value of offending incentives and non-offending incentives at different time periods. By assessing what goals are being actively pursued it may be possible to test this particular facet of the TCC with offenders. In addition it will inform about what PCI:OA scales and factors predict goal pursuit.

In addition, the TCC describes how schemas, cognitive biases, expectations and 'satisficing', affect goal pursuit. Each of these variables needs to be studied, perhaps by inspecting the qualitative content of goals, in order to see how these variables outlined in the TCC influence offenders' goal pursuits, either relating to offending or not. Experimental studies can also be carried out by manipulating expectancies, for example, and registering how ratings of goals' importance, value, and achievability vary.

In addition, the appetitive and avoidant nature of goals could be investigated in offenders specifically, which could include analysis of how obstacles, goal conflicts and time frame affect offenders' goal achievement, as outlined in the TCC. Ward, Vess, Collie and Gannon (2006) contend that the Risk, Needs and Responsivity model of offender rehabilitation proposed by Andrews and Bonta (1993) utilises avoidant goals – things that the

offender has to get rid of (for example, an antisocial attitude), and avoid (for example, old acquaintances). Ward et al. (2006) comment that by focusing on providing offenders with the knowledge, skills and competencies to achieve a good life in a prosocial manner (approach goals), offending can be reduced. By default, criminogenic needs will also be addressed, as the need to offend will be reduced. These same authors suggest that it is easier to motivate offenders if the benefits the offender enjoys from his offending are highlighted, and new appropriate ways of achieving these feelings or goals are learned. This will reduce feelings of shame and increase offenders' engagement in the change process, and is more likely to fit with the offenders' schemas (Ward et al., 2006). Hence, Ward and colleagues suggest that priority should be given to approach goals; targeting avoidant goals alone will be insufficient to lead a better life.

Mann, Webster, Schofield and Marshall (2004) looked at approach versus avoidance relapse prevention (RP). Twenty-four incarcerated sexual offenders received approach-focused relapse prevention, and 23 received traditional avoidance-focused relapse prevention. Offenders were matched for offence type, age, risk, sentence length, and all therapists used for the groups were the same. The RP programmes were approximately 200 hours in duration and the only difference was the approach- or avoidance-focused RP component. Those participants who received the approach-focused RP recorded more diary entries related to approach goals than the avoidance-focused RP group entered for risk factors, recorded more lapses, and were rated by staff as more motivated. Overall, those in the approach-focused RP programme engaged better than those participants who completed the

avoidance-focused RP programme; homework compliance and openness about lapses was taken as evidence for this. Despite the fact that staff ratings may be unreliable (the same staff delivered both programmes) and long-term outcome such as reconviction is not reported, the participants in the approach-focused RP programme still learned about their risk factors and seemed more autonomous and willing to take responsibility for their behaviour. Also, Marshall et al. (2005) emphasise the importance of approach goals in offender treatment. Telling an offender to avoid the public house where he usually experiences alcohol-related violence does not fill the gap that avoiding this activity leaves. In line with the TCC, offenders need to be encouraged to develop prosocial, meaningful ways, to achieve the feelings and outcomes usually obtained from offending. By using a positive approach to RP, for example, offenders can set subgoals (known to facilitate motivation to achieve goals), and celebrate achievements along the way. All of this will potentially reduce recidivism (Marshall et al., 2005). With regards the TCC, research into treatment which uses approach and avoidance goals will serve to inform about the applicability of this facet of the TCC to offending.

In addition, there is overlap between the life areas in the PCI:OA and the needs in Ward's GLM of offender rehabilitation (Ward, 2002; Ward & Brown, 2004): (1) life (including healthy living), (2) knowledge, (3) excellence in play and work, (4) excellence in agency (i.e., autonomy), (5) inner peace (being stress-free), (6) relatedness (social support) and community, (7) spirituality (finding meaning in life), (8) happiness, and (9) creativity. Both the TCC and GLM are strength-based, in that they seek to provide offenders with more fulfilling and rewarding ways in which to achieve goals, rather than focus

on getting rid of undesirable behaviours and attitudes. In both approaches, it is not the goal that is seen as inappropriate; it is the way in which that goal is strived for. Specifically, in the TCC, it assumed that offending is pursued because none of the other incentives the offender has will induce a net affect change as great as offending does. As such, the person may want to earn some money, but uses offending to do so, rather than getting a job, for example. Additionally, in the GLM there are internal (skills and knowledge, for example) and external conditions (for example, opportunities) that need to be in place for needs to be met (Ward, 2002). These conditions are reflected in the PCI:OA when questions are asked about whether a participant knows how to achieve their goals, the control over achieving such goals, and so on. Further, Ward (2002) assumes that people have a strategy in place that organises their lives, and this details what goods (goals) are to be strived for and how these goods are met. A similar concept in the TCC is the current concern, which is a latent process that guides behaviour to achieve a particular goal. The current concern is more specific than the strategy Ward (2002) describes, but nonetheless the principles are the same. The principles of goal attainment are covered extensively in the literature (see Emmons, 1999), and unsurprisingly the supposition that optimal satisfaction is achieved if goals are selected according to a high probability of attainment and when no goal conflicts exist, is common to both theories. Further, McMurrin and Ward (2004) allude to SEU as a method of choosing a goal, which is also the case in the TCC. With regards offending specifically, Ward (2002) states that to reduce offending, offenders need to possess a fulfilling and coherent lifestyle; this is a sentiment echoed in the TCC, which states that goals need to fit in

with a person's core values in order to achieve maximum happiness. All in all, the TCC and the GLM are very similar, but the TCC seems to be a more specific theory with more empirical support. GLM takes into account the context, for example, within which a good life is built, but the TCC is specifically concerned with the initiation, pursuit, and relinquishing of goals. Taking all the evidence together, however, suggests that the TCC is indeed a promising theory with which to operationalise motivation assessment of offenders.

### **Future directions**

This thesis has demonstrated the potential of the PCI:OA to assess offenders' motivation to change, but it is clear that further studies are required to replicate and extend these findings. First, the validity and reliability of the factor structure, scale scores, and factor scores, should be further investigated with different offender samples, since different types of offender may perform differently. The PCI:OA needs to be studied with women, adolescents, and people of various cultural and ethnic groups.

A second aspect that requires further work is how goals pursued relate to the RCI. This links into the TCC, as the RCI calculation is based upon SEU theory which is the process that determines which goal one will pursue. However, this is still a very new way in which to score the PCI:OA and it is unclear what the optimum score is. Positive RCI values reflect overcommitment and negative values undercommitment (W. Cox, personal communication, 25 August, 2005). W. Cox asserts that over- or under-



commitment should not necessarily be viewed as desirable or undesirable, and that zero should not be deemed the ideal value. Rather, it is seen as an individual characteristic. Some people need a large payoff before they will pursue the goal, whereas others pursue goals with little reward. W. Cox states that it is this particular characteristic of people that the RCI is designed to tap (W. Cox, personal communication, 25 August, 2005). Overcommitment may not always be an indication that the goal is unrealistic, which may be the case if the goal was hard to achieve but very rewarding. The goal could also be easily achievable but not very rewarding which would reduce the predicted level of commitment according to SEU. People may be less likely to take action required to achieve goals if they are overcommitted (E. Klinger, personal communication, 25 August, 2005). A positive value suggests that there are factors entering into the commitment other than those predicted by SEU, and examples may include external forces, for example a partner. Achieving the goal will not be very enjoyable but goal attainment would avoid adverse consequences (E. Klinger, personal communication, 25 August, 2005), equivalent to external motivation in Self Determination Theory (Deci & Ryan, 1985). E. Klinger suggests that high positive RCI scores may highlight a potential motivational problem that should be investigated during SMC. The same is true for high negative scores, because these suggest that the individual is holding back. If a person is overcommitted it may indeed be maladaptive because being committed to numerous unsatisfying goals reduces overall wellbeing, which can lead to offending for example, as people feel that they do not have much to lose, or substance misuse (E. Klinger, personal communication, 25 August, 2005). Emmons (1999) reports that

those with avoidant goals are more likely to feel unhappy. Therefore, further work with this score in order to investigate what high and low RCI scores are associated with in terms of offending or not would be beneficial.

A third development would be a better investigation of the PCI:OA's ability to measure engagement and change in treatment. A randomised controlled trial or a comparison of matched groups, with careful attention to ensuring that the study was appropriately powered, would be appropriate.

It must be borne in mind, however, that motivation plays only a role in treatment outcome, and that it is not the only factor involved. Much of the literature about motivation to change focuses on changing the client. Broader approaches to motivation, such as 'readiness to change' (Howells & Day, 2003), include variables relating to the treatment programme and the setting within which the treatment takes place. A key recommendation of Howells and Day (2003) is that there should be a shift from trying to change the person to considering the therapeutic alliance between therapist and participant. Associated with this, and evidenced here, is the fact that there is scope for further work on improving the accuracy of staff ratings of motivation. Although these are not specific to work with the PCI:OA, they are worthy of a mention.

Thus, future studies need to be mindful of the impact of other variables when testing the PCI:OA. Beyko and Wong (2005) describe how the interaction between programme participant and programme itself can lead to non-completion. The PCI:OA is useful here also, in that it can account for the impact of other factors; the idiographic component allows the participant to talk about any area of their life, and no restrictions are placed on the number of concerns that participants can talk about. Thus, participants can discuss

concerns they have about treatment, for example, and concerns about being in prison, both evidenced in Chapter 7.

### **Conclusion**

In conclusion, how to measure offenders' motivation to change is an important area requiring investigation. Here, a theory of motivation that may be of value in driving studies of offenders' motivation to change has been offered. The research in this thesis describes a theoretically-driven development of a measure that can be used to assess offenders' motivation to change. It is hoped that this work will be the starting point of further investigation of the PCI:OA both as an assessment and as a means of altering offenders' willingness to change.

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**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. We will now do three things.

**First**, I'd like you to think carefully about each Area of Life. I would then like you to tell me about the important concerns that come to your mind.

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. Please tell me about the most important concerns that come to your mind.

**Second**, I would like you to describe to me 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. I will fill in these numbers on the Answer Sheet.

If you prefer, rather than tell me about your concerns and how you would like things to turn out, you can write it down yourself. It is up to you, but please tell me what you would like to do.

## 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 is not important at all, and 10 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 is not likely at all, and 10 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 is no control at all, and 10 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 is not knowing at all, and 10 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 is no happiness at all, and 10 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 is no unhappiness at all, and 10 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 is no commitment at all, and 10 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 is very short (e.g., days), and 10 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 is not helpful at all, and 10 is very helpful**

---

**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**

---

**Area #1: Home and Household Matters. When you think of this area, what concerns come to mind?**

**Step 1. Jot down your concerns:**

**Step 2. Describe what you want to have happen:**

**Area #1:**

**Step 3. Choose numbers from Rating Scale Sheet and fill in**

boxes:

**Concern #1**

**What I would like to have happen is . . .**

- > **Importance:**
- > **How likely:**
- > **Control:**
- > **What to do:**
- > **Happiness:**
- > **Unhappiness:**
- > **Commitment:**
- > **When it will happen:**
- > **Offending a) help:**
- > **Offending b) help:**
- > **Offending a) interfere:**
- > **Offending b) interfere:**
- > **Prison/Prob./Hospital help:**
- > **Prison/Prob./Hospital interfere:**

**Concern #2**

**What I would like to have happen is . . .**

- > **Importance:**
- > **How likely:**
- > **Control:**
- > **What to do:**
- > **Happiness:**
- > **Unhappiness:**
- > **Commitment:**
- > **When it will happen:**
- > **Offending a) help:**
- > **Offending b) help:**
- > **Offending a) interfere:**
- > **Offending b) interfere:**
- > **Prison/Prob./Hospital help:**
- > **Prison/Prob./Hospital interfere:**

## **Appendix 2: Information sheet and consent form**

---

### **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 are we?***

We are researchers at the School of Psychology, Cardiff University and at University of Wales Institute, Cardiff (UWIC) working with Psychologists at HMP Cardiff.

#### ***What is our research?***

We are looking at reasons why offenders change, or don't change, their behaviour. We would like to understand what motivates people to engage in treatment and to stop offending.

#### ***Why are we doing this?***

To design better ways of offender assessment and treatment.

#### ***Who are we inviting to take part?***

We will be interviewing approximately 150 offenders with and without diagnosed personality disorders.

#### ***Do I have to take part?***

It is up to you to decide whether or not to take part. If you do decide to take part you 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 I have to do?***

You will be interviewed by one of the researchers, or a member of staff. 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 really want to make some changes in my life'). The interview will take between two to three hours

and you can have rest breaks, or complete the interview over a number of short sessions if you prefer. 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 we are not offering a specific therapeutic programme we believe the interview has helped people to think about positive things they can achieve.

***What are the possible disadvantages?***

We are 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 we can contact you again in about three months time to ask if you will repeat the interview at that time. This is so we can measure whether motivation changes over time. We will also be collected information on reoffending in two years time and we will require your permission to do this.

***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 Mary McMurrin at Cardiff University and Dr Joselyn Sellen at UWIC. It is conducted by Miss Eleni Theodosi of Cardiff University. It is funded by the Department of Health's National Programme for Forensic Mental Health Research and Development.

***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 contact Eleni Theodosi at Cardiff University. Alternatively please speak to one of the Psychologists at HMP Cardiff.

## **Consent Form**

### **Motivation to Change 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):

## **Appendix 3: Demographics form and offence sheet**

---

### **Motivation to Change Interview**

#### **Demographics**

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:**

Age:

Number:

Gender:

Male/Female

Nationality:

Ethnic Origin:

Marital status:

Married/Live with partner/separated/divorced/single

Age of leaving full-time education

Current/last occupation

Age at first conviction:

Time in years since first conviction

Length of current sentence:

Time left to serve of current sentence:

Type of offence for current conviction

How many youth custody sentences  
(custodial sentences while under 21 years of age)

Total number of court appearances  
(total number of separate occasions when the offender has appeared in court and been found guilty)

How many convictions:

How many offences:



## **Motivation to Change Interview**

**Participant id number:**

**These details will be kept separate from all the other information you give us. We ask for these details so that we can trace you for follow up interviews at a later date. Also, so that we can trace reconviction information in the future.**

**Name:**

**Date of Birth:**

**Offending sheet**

The questions below ask about your involvement with different types of offence.  
For each type of offence, please complete the rows that apply to you.

---

	Yes, current conviction	Yes, previous conviction	No
<b>1. Have you ever committed an acquisitive offence e.g. burglary, theft, handling stolen goods, fraud, forgery?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Have you ever committed criminal damage or fire setting e.g. damage to property, criminal damage by fire, arson?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3. Have you ever committed drug offences e.g. possession, trafficking?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4. Have you ever committed vehicle offences e.g. TWOC, TADA?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5. Have you ever committed alcohol specific offences e.g. driving whilst intoxicated, drunk and disorderly?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6. Have you ever committed a violent offence, e.g. assault, wounding, robbery, ABH, GBH?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>7. Have you ever committed rape or sexual assault?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>8. Have you ever committed child sexual abuse?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9. Have you ever committed any other offence?</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please state what

Current conviction  
Previous conviction  
Yes, but not convicted

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## Appendix 4: University of Rhode Island Change Assessment

### Stages of Change Questionnaire

Each statement describes how a person might feel about his or her problems. Please indicate the extent to which you tend to agree or disagree with each statement. In each case, make your choice in terms of how you feel *right now*, not what you have felt in the past or would like to feel.

There are *five* possible responses to each of the questionnaire items:

- 1 - Strongly disagree (SD)**
- 2 - Disagree (D)**
- 3 - Undecided (U)**
- 4 - Agree (A)**
- 5 - Strongly agree (SA)**

Circle the number that best describes how much you agree or disagree with each statement.

	SD	D	U	A	SA
1. As far as I'm concerned, I don't have any problems that need changing.	1	2	3	4	5
2. I think I might be ready for some self-improvement.	1	2	3	4	5
3. I am doing something about the problems that had been bothering me.	1	2	3	4	5
4. I think it might be worthwhile to work on my problems.	1	2	3	4	5
5. I'm not the problem one. It doesn't make sense for me to be here.	1	2	3	4	5
6. It worries me that I might slip back on a problem I have already changed, so I am here to seek help.	1	2	3	4	5
7. I am finally doing some work on my problems.	1	2	3	4	5
8. I've been thinking that I might want to change something about myself.	1	2	3	4	5

- 1 - Strongly disagree (SD)**  
**2 - Disagree (D)**  
**3 - Undecided (U)**  
**4 - Agree (A)**  
**5 - Strongly agree (SA)**

	SD	D	U	A	SA
9. I have been successful at working on my problem but I'm not sure I can keep up the effort on my own.	1	2	3	4	5
10. At times my problem is difficult, but I'm working on it.	1	2	3	4	5
11. Being here is pretty much a waste of time for me because the problem doesn't have to do with me.	1	2	3	4	5
12. I'm hoping this place will help me to better understand myself.	1	2	3	4	5
13. I guess I have faults, but there's nothing I really need to change.	1	2	3	4	5
14. I am really working hard to change.	1	2	3	4	5
15. I have a problem and I really think I should work on it.	1	2	3	4	5
16. I'm not following through with what I had already changed as well as I had hoped, and I'm here to prevent a relapse of the problem.	1	2	3	4	5
17. Even though I'm not always successful in changing, I am at least working on my problem.	1	2	3	4	5
18. I thought once I had resolved the problem I would be free of it, but sometimes I still find myself struggling with it.	1	2	3	4	5
19. I wish I had more ideas on how to solve my problem.	1	2	3	4	5
20. I have started working on my problems, but I would like help.	1	2	3	4	5

- 1 - Strongly disagree (SD)**
- 2 - Disagree (D)**
- 3 - Undecided (U)**
- 4 - Agree (A)**
- 5 - Strongly agree (SA)**

	SD	D	U	A	SA
21. Maybe this place will be able to help me.	1	2	3	4	5
22. I may need a boost right now to help me maintain the changes I've already made.	1	2	3	4	5
23. I may be part of the problem, but I don't really think I am.	1	2	3	4	5
24. I hope that someone here will have some good advice for me.	1	2	3	4	5
25. Anyone can talk about changing; I'm actually doing something about it.	1	2	3	4	5
26. All this talk about psychology is boring. Why can't people just forget about their problems?	1	2	3	4	5
27. I'm here to prevent myself from having a relapse of my problem.	1	2	3	4	5
28. It's frustrating, but I feel I might be having a recurrence of the problem I thought I had resolved.	1	2	3	4	5
29. I have worries but so does the next person. Why spend time thinking about them?	1	2	3	4	5
30. I am actively working on my problem.	1	2	3	4	5
31. I would rather cope with my faults than try to change them.	1	2	3	4	5
32. After all I had done to try to change my problem, every now and again it comes back to haunt me.	1	2	3	4	5

## Scoring Stages of Change Questionnaire

Add the numbers circled for each of the following scales:

The following are ***Precontemplation*** items: 1, 5, 11, 13, 23, 26, 29, 31

The following are ***Contemplation*** items: 2, 4, 8, 12, 15, 19, 21, 24

The following are ***Action*** items: 3, 7, 10, 14, 17, 20, 25, 30

The following are ***Maintenance*** items: 6, 9, 16, 18, 22, 27, 28, 32



**C. Rate each of the following in terms of how true each statement is for you.**

12. I agreed to a treatment programme now because I was under pressure to come.
13. I am not sure this programme will work for me.
14. I am confident this programme will work for me.
15. I decided to attend a treatment programme because I was interested in getting help.
16. I'm not convinced that this programme will help me.
17. I want to openly relate with others in the programme.
18. I want to share some of my concerns and feelings with others.
19. It will be important for me to work closely with others in solving my problem.
20. I am responsible for this choice of treatment programme.
21. I doubt that this programme will solve my problems.
22. I look forward to relating to others who have similar problems.
23. I chose this treatment programme because I think it is an opportunity for change.
24. I am not very confident that I will get results from the treatment programme this time.
25. It will be a relief for me to share my concerns with other programme participants.
26. I accept the fact that I need some help and support from others to beat my problem.



## Appendix 6: Staff rating sheet

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### Motivation for therapy staff-assessment

We are interested in how motivated your participant is for therapy. Please let us know by answering the questions below for how your participant is *now*. We understand that motivation for therapy can change – sometimes your participant will feel more motivated than at other times. Please say how your participant seems now.

1. Overall, tell us how motivated your participant is to participate in therapy:

Please rate your participant's motivation for therapy on a scale of 1 to 100, where 1 is not at all motivated, and 100 is 100% motivated.

I would rate my participant's motivation for therapy as ..... %

2. Please tick the box that best describes your participant's stage of change:

- a. My participant is not interested in changing
- b. My participant is thinking about changing but hasn't done anything Yet
- c. My participant is preparing to make changes soon
- d. My participant is already taking steps to change
- e. My participant has already made changes and is concentrating on keeping up these positive changes.

3. Please rate your participant on the following reasons for engaging in therapy: Please rate the reasons (internal and external) for engaging in therapy on a scale of 1 to 100, where 1 means doesn't really apply, and 100 is 100% applies.

- a. Internal (i.e., wants to change because it's right for him/her) .....%
- b. External (i.e., wants to change because it's what others want or expect) .....%

4. If the participant has been in treatment with you, please rate him/her on the following:

- a. Attendance .....% attendance
- b. Punctuality .....% on time
- c. Engagement .....% concentration and contribution
- d. Compliance .....% following instructions or completion of assignments

## **Appendix 7: PCI:OA (TR)**

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Please see next page. Only the answer sheet is provided as all other parts of the PCI:OA remained the same.

**Area #1: Home and Household Matters. When you think of this area, what concerns come to mind?**

**Step 1. Jot down your concerns:**

**Step 2. Describe what you want to have happen:**

**Area #1:**

**Step 3. Choose numbers from Rating Scale Sheet and fill in boxes:**

**Concern #1**

**What I would like to have happen is . . .**

- > **Importance:**
- > **How likely:**
- > **Control:**
- > **What to do:**
- > **Happiness:**
- > **Unhappiness:**
- > **Commitment:**
- > **When it will happen:**
- > **Conviction a) help:**
- > **Conviction b) help:**
- > **Conviction a) interfere:**
- > **Conviction b) interfere:**
- > **Treatment help:**
- > **Treatment interfere:**

**Concern #2**

**What I would like to have happen is . . .**

- > **Importance:**
- > **How likely:**
- > **Control:**
- > **What to do:**
- > **Happiness:**
- > **Unhappiness:**
- > **Commitment:**
- > **When it will happen:**
- > **Conviction a) help:**
- > **Conviction b) help:**
- > **Conviction a) interfere:**
- > **Conviction b) interfere:**
- > **Treatment help:**
- > **Treatment interfere:**

