

# Treatment Engagement of People in Forensic Personality Disorder Services

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## **ABSTRACT**

This thesis explores the contribution of the Personal Concerns Inventory (PCI; Cox & Klinger, 2000) to the development of treatment engagement strategies with people with personality disorder (PD) in forensic settings. A systematic literature review of evaluated engagement strategies with offenders and people with PD showed little diversity in terms of strategies evaluated with PD, specifically psycho-education and goal-based interventions only (Chapter 2). Furthermore current literature focuses mainly on motivational interviewing (MI) in offenders as somewhat useful in increasing motivation to engage and change. However preliminary support for node-mapping and interactive activities has been found in a small number of studies. The distinct lack of strategies with PD is problematic considering the high treatment non-completion rates with this population and the case study in Chapter 3 discusses the complexity of working with patients with PD. It finds Dialectical Behaviour Therapy (DBT), which embeds motivational strategies in its programme, as improving not only treatment retention but also clinical outcomes, thereby offering further encouragement in focusing engagement strategies with PD. Consequently, a critique of the PCI was necessary in understanding the PCI as both a measure of motivation to change and a motivational intervention. This semi-structured interview demonstrates reasonable reliability and validity

however the offender variants' psychometric properties are weaker. The robust theoretical basis of the PCI and the consistent positive qualitative feedback from participants suggests value in evaluating the tool as a motivational intervention. Thus Chapter 5, an empirical study, evaluates the PCI followed by goal counselling as a motivational intervention with people with PD using a mixed-methods approach and a small number multiple baseline design. The quantitative results offer limited support for the effectiveness of the PCI or understanding of the process of change. However the qualitative data reflects that in existing PCI literature: participants perceived it as effective in focusing them on their goals and the relevance of treatment, thereby enhancing motivation. Therefore further investigations are needed to clarify discrepancies between participant perception and the outcome measure data in order to understand the extent to which the PCI enhances motivation.

The final chapter summarises the thesis' findings, the impact for research and clinical practice, the main limitations of this thesis, and makes recommendations for future research. Overall, the complex and idiosyncratic manifestation of a diagnosis of PD and the numerous external and internal factors affecting the engagement of people with PD recommend tailored assessment and intervention using a client-led approach.

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# **CHAPTER ONE**

## **Introduction**

## **INTRODUCTION**

Genuine treatment engagement is the backbone of an efficient and effective service in terms of facilitating treatment success, maintaining staff morale and maximising service usage. This is especially important when services are pushed to evidence quality and success in order to secure and retain much needed funding. Therefore enhancing treatment engagement is a secondary driver to ensuring treatment programmes are full, have high completion rates, and are successful.

### *Treatment engagement and completion in Personality Disorder (PD) and offenders*

Enhancing treatment engagement is understandably paramount with the most problematic populations and to date there has been a strong focus on substance abusing populations. However current research suggests a wider scope is needed to account for offending and PD populations. These populations are not mutually exclusive. Rather the prevalence of individuals with diagnoses of PD in the criminal justice system is estimated as 60-80% of male prisoners and 42-50% of female prisoners in comparison to 6-15% of the general population (Fazel & Danesh, 2002; Sainsbury Centre, 2011). This high prevalence may be skewed by the significant presence of antisocial

PD in both male (47%) and female (21%) prisoners (Fazel & Danesh, 2002).

Treatment non-completion rates are not vastly different between offender and PD populations. The national completion rate of offending behaviour programmes (OBPs) in 2009/2010 was 69%, which had decreased from 2008/2009, yet met the target completion rate of 66% (National Offender Management Service, 2010). Similarly, McMurran, Huband & Overton (2010) reviewed 25 studies focused on psychosocial treatment for people diagnosed with PD and reported a median non-completion rate of 37%. Again, just over a third did not complete.

Attendance and completion in a forensic population are potentially driven by mandated treatment and motivation to be seen to engage, neither of which necessarily denote treatment engagement. Therefore, attendance and completion rates should be thought of in the context of both a forensic PD population and the criteria of a PD diagnosis for a richer picture.

All 11 of the PD sub-types outline emotional dysregulation, interpersonal difficulties, cognitive distortion and impulse control as pervasive, persistent and problematic (Craissati et al., 2015). It is the psychological and social manifestation of these markers that is problematic for treatment engagement. Difficulties developing relationships; consistency in routines; and engagement in psychological ideas and strategies are all potentially 'therapy-

interfering'. Furthermore, antisocial PD specifically denotes a "pattern of disregard for, and violation of, the rights of others" (DSM-IV-TR, 2004), which directly relates to offending behaviour, in itself an obstacle to treatment.

### *Impact of treatment non-completion*

Reasons to address treatment engagement with both offenders and people with PD are diverse. Adverse consequences are reported for treatment dropouts: reoffending has been found to be higher for premature dropouts than those who never started treatment (McMurran & Theodosi, 2007) and higher rates of hospitalisation and lower scores on global functioning were reported in non-completers of PD treatment (McMurran, Huband and Overton, 2010). In McMurran et al.'s (2010) review only one of four studies reported no difference between PD treatment completers and non-completers (Duggan, et al., 2007). For the individual these consequences inherently impact on daily functioning however they are also arguably detrimental to society in terms of public safety and public funds. Furthermore, a lack of attendance to and engagement in services is concerning for service funding, staff morale and group instability.

Perhaps treatment engagement difficulties with individuals with PD contribute to the historic stigma of being "untreatable" (Aviram, Brodsky & Stanley, 2006; Berry et al. 1999; Lewis & Appleby, 1988). Indeed the relatively late introduction of targeted services and

treatments in comparison to major mental illnesses reflects a delay in addressing this population in clinical practice and in research, which has a more established focus on DSM Axis I disorders (O'Rourke & Hammond, 2001). Fortunately, inpatient, outpatient and prison services are now better trained to support this population under the guidance of NICE Guidelines and new directives (NICE, 2009; Bolton et al., 2014). Although we are currently in a position where evidence-based treatment exists for both offenders and people with PD, and understanding engagement and motivation with these populations is advancing, what remains is how to engage individuals in treatment?

Surprisingly this is an under-developed area of empirical research, and there are potentially several reasons for this. The first is that some motivational strategies are part of the treatment process rather than evaluated as isolated engagement strategies. For example phone calls, handwritten notes and pre-group screenings or preparation are clinically described as part of the treatment rather than empirical evaluations (Ogrodniczuk et al., 2005). The second is that motivational interviewing (MI) has been a key focus in the field (McMurrin, 2009). A third reason is the complexity in robust evaluation of motivation and engagement in terms of the extensive factors contributing to the processes.

### *Theories of engagement*

Treatment engagement has various related variables: readiness, working alliances, and motivation to change, engage and for treatment. In the literature, these variables are often discussed individually yet not always fully distinguished from its associated constructs in terms of the definitions used. Full exploration of these variables and their delineation from each other is essential, particularly in robust research. For example motivation to change is one aspect of motivation for treatment but also denotes the individual's recognition of their problems or their own goals. Similarly motivation for treatment may not denote pursuit of change but can be externally driven by statutory orders or pressure in their supportive networks. Thus, the ways in which the variables overlap must be acknowledged whilst also delineating between treatment engagement and its associated constructs, as endorsed by Drieschner et al. (2004).

In the following, the working definition of treatment motivation is *'the internal states of the organism that lead to the instigation, persistence, energy, and direction of behaviour towards a goal'* (Klinger & Cox, 2004, p.4). This encompasses the affective and cognitive factors applied by the Personal Concerns Inventory (Cox & Klinger, 2000), used in Chapter 4 and 5. Similarly, the definition is distinctive from, but associated with Drieschner and Boomsma's (2008) behaviour-based approach to treatment engagement, as applied by the facets of the Treatment Engagement Rating Scale used

in Chapter 5. The authors understand behaviour in treatment as under the control of the patient's own volition and inherent in treatment effectiveness.

To consider the development of treatment engagement, an understanding of the factors affecting the variables should be established. The Multifactor Offender Readiness Model (MORM; Ward et al., 2004) highlights the internal factors (cognitive, affective, volitional, behavioural and identity) and the external factors (circumstances, support, location, opportunity, resources, support, programme and timing) that contribute to treatment readiness and, thereby, engagement.

Tetley et al. (2012) developed this model for PD to include cognitive competencies, trait, interpersonal, co-morbidity, and physical factors so relevant to this population. The model highlights that these factors contribute to treatment readiness which facilitates treatment engagement, attendance, participation, working alliance and ultimately clinical outcomes.

Therefore these factors are not restricted to readiness but rather overlap between variables of motivation and engagement. Importantly, these factors also depict various routes to low motivation and engagement. For example cognitive difficulties impair ability to engage with the group material, resulting in poor engagement. Yet poor engagement can also be a result of weak volition which impairs willingness to engage in the group. Ultimately



low motivation and poor engagement is associated with poor progress during treatment which can result in premature withdrawal from treatment (Joe et al, 2001).

The various factors described in the MORM and the range of variables associated with engagement and motivation inevitably leads to a difficulty in clarification of definition. This is not a new discussion in the literature (Rosenbaum, 1985; Drieschner, Lammers & van der Staak, 2004; Tetley et al., 2011). Furthermore, outcome measures will vary dependent on the definition of motivation applied. This is problematic for research in that it can be unclear how true to the particular definition researchers are and whether the important overlap between variables is accounted for. Thus this particular field requires acknowledgement of how multifaceted engagement and motivation are and clarity in definitions used.

### *Personal Concerns Inventory*

The PCI (Cox & Klinger, 2000) is a measure particularly explicit in its definition of motivation to change. Underpinned by the Theory of Current Concerns (TCC; Cox & Klinger, 2002), the PCI utilises a teleological approach in which goal identification and pursuit are addressed through the articulation of 'current concerns'. The internal and external factors contributing to goal pursuit, for example opportunity and personal capabilities, are accounted for. These cognitive, affective, and social processes that drive goal attainment or

abandonment are considered in the PCI ratings of the articulated concerns.

Using the goal construct of motivation and deriving the individual's goal profile in terms of value and attainability could have value as a motivational intervention. Indeed the PCI has preliminary basis as this with people with PD (McMurran et al., 2013). That said, its use with offenders is not as encouraging but rather warrants further exploration (Theodosi & McMurran, 2006; Sellen et al., 2013).

### *Justification of thesis*

Distinct gaps in the literature have been identified, particularly in the need for a range of sophisticated, evidence-based motivational interventions with offenders and PD. This thesis' full exploration of existing engagement strategies, the application of these in treatment and a focus on the PCI and its properties as a motivational intervention addresses many of the identified gaps.

Therefore, this thesis has potential to progress this area in terms of developing a goal-based motivational intervention with a forensic PD population.

### *Aims of the thesis and thesis structure*

This thesis aims to offer evaluation and reflection of the current engagement strategies available to particularly hard to reach

populations: individuals with PD and offenders. In order to do this the following objectives will need to be met:

- evaluate a broad range of existing engagement strategies with offenders and people with PD;
- explore the clinical challenges of working with someone with PD and the impact of engagement strategies on treatment attendance, engagement and clinical outcomes;
- investigate the theoretical underpinnings, psychometric properties, clinical and research practicability of the PCI;
- evaluate the PCI and goal counselling as a brief dual motivational intervention with a forensic PD population.

To meet these objectives Chapter 2, a systematic review of empirically evaluated motivational interventions available for people with PD and offenders, will offer an explicit understanding of existing strategies, their effectiveness and residual gaps in the field. This provides a good basis to Chapter 3, the case study, which will provide an overview of the challenges of working with individuals with PD in DBT-informed treatment. Chapter 4 presents a critique of the PCI that considers its role as a measure of motivation and whether and how it could be implemented as a motivational intervention. Finally, having thoroughly explored the tools capabilities, Chapter 5 empirically evaluates the PCIs use as a goal-based motivational intervention with people with PD in a forensic outpatient service.

## **CHAPTER TWO**

### **A Systematic Literature Review of Engagement Strategies used with Personality-Disordered Forensic Populations**

## **ABSTRACT**

Clinical practitioners have an ethical responsibility to facilitate efficient and effective evidence-based practice. This first means sustaining attendance and treatment engagement through improving treatment motivation, treatment readiness and working alliances. The characteristics and markers of people with diagnoses of PD and offenders can present as obstacles to treatment engagement. These include difficulties in interpersonal relationships, impulsive and chaotic behaviours, emotional dysregulation and high co-morbidity of substance misuse. Indeed, engagement difficulties are evidenced in high dropout and non-completion rates in treatment with these populations.

This review aimed to identify what works in improving treatment engagement and retention in 'hard to engage' populations, specifically for people with PD and offenders. Addressing the two separate populations enabled a full overview of any gaps in research and offered a means of comparing effectiveness between populations. To further the scope of this review, there was a broad focus on tools measuring engagement and the associated constructs.

The search yielded 27 studies, 3 of which focused on PD populations. Due to the heterogeneity in study design and analysis a narrative synthesis was conducted. Seven categories of strategies were derived from the evaluations. Overall the engagement

strategies reduced dropout and non-completion rates in both populations, however there were mixed results on measures of engagement, motivation, readiness and alliance. Although strategies had some impact on engagement, difficulties with outcome measures have limited how conclusive the effects are. Finally, it is clear that engagement strategies with people with PD are particularly under-researched.

## **INTRODUCTION**

In response to constant public sector cutbacks, services are required to be as resource-efficient and effective as possible. The prison and NHS mental health services particularly understand the need to run an effective service due to well-publicised economical restraints and high competition from the private sector. Just one answer to this is a focus on supporting people to engage and progress in treatment once services are accessed. The development of services means little without client's motivation and genuine engagement with the treatment. Therefore, an overall understanding of how treatment attendance, retention and engagement can be enhanced is necessary.

Treatment completion rates for offenders and people with PD are problematic. Completion rates of OBPs in the community have been steadily decreasing between 2009/10 and 2012/13 from approximately 70% to 60% (National Offender Management Service; NOMS, 2013). Treatment completion in prison however met and exceeded the target figure for treatment completers by 7% (NOMS, 2013). Conversely, Cann et al. (2003) reported a lower non-completion rate for young offenders (14%) and adult males (9%) in cognitive skills programmes.

The issue of PD has great relevance to offenders. Fazel & Danesh (2002) reported 65% of male offenders were diagnosed with PD. To put this into context, only 3.7% of prisoners had diagnoses of

psychotic disorders (Fazel & Danesh, 2002). Therefore, engagement of people with PD may be useful in informing engagement of offenders in treatment and vice versa. Indeed, problems with treatment completion in PD populations are widely discussed (Coid, 2002; Beek & Verheul, 2008; Crawford et al., 2009; Craisatti et al., 2011).

Compared to other diagnoses, non-completion of adult psychotherapy is 26% for those with PD but 20% for those with any other diagnosis (Swift & Greenberg, 2012). One systematic review of 25 studies of interventions specifically for people with PD identified a median non-completion rate of 37% (McMurran et al., 2010). Borderline personality disorder (BPD) has been posited as particularly predictive of non-completion (Ben-Porath, 2004; Martino et al., 2012). Yet the results from a recent meta-analysis indicate the dropout rates for this population are varied so whilst a mean completion rate of 75% was reported, the dropout rate ranged between 36-100% (Barnicott et al., 2011). Few studies report on antisocial personality disordered populations (ASPD) which may skew the results and highlights a general neglect in research with this particular population (Evans, 2010).

Treatment completion is an important discussion point as it precedes positive outcomes, including improved level of functioning (Drieschner & Boomsma, 2008). Additionally, offenders who complete treatment are less likely to reoffend than untreated



offenders ( $d=0.04-1.52$ ) (McMurran & Theodosi, 2007). Similarly, the adverse consequences of non-completion are concerning. Offenders who drop out of treatment programmes are more likely to reoffend compared to those not recruited to treatment at all (McMurran & Theodosi, 2007). Premature dropout of PD patients is associated with increased length of stay in hospital (Webb & McMurran, 2009), higher rates of hospital admissions (Karterud et al., 2003) and greater risk of suicide completion (Dahlsgaard, Beck & Brown, 1998).

These adverse outcomes reflect problems with various aspects of the patient's daily functioning, including interpersonal relationships, well-being, risk and, of course, stability in mental health. They also have a huge impact on already stretched mental health services and funding opportunities. On a more local level, poor engagement is demoralising for staff and other group members. Consequently, the poor completion rates and outcomes together make for a pressing situation and one that highlights active enhancement of attendance and engagement as important. To this end, an understanding of treatment engagement is essential.

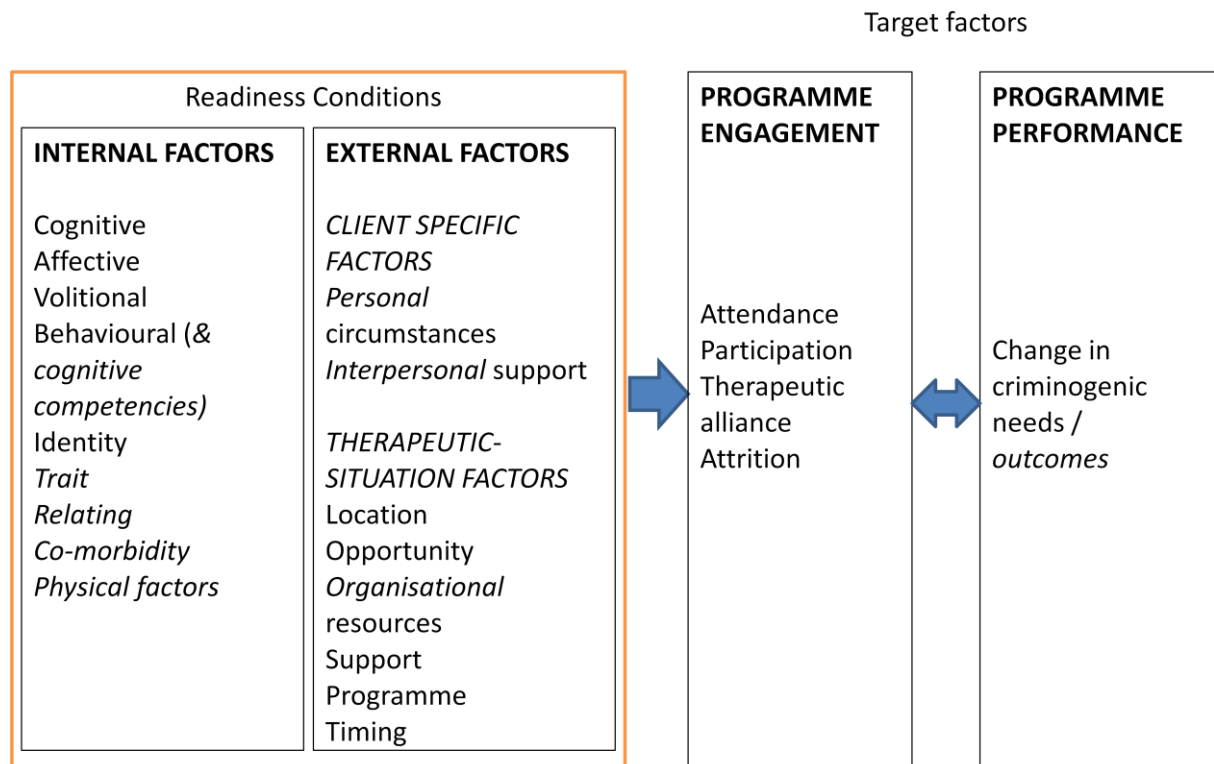
### *Treatment readiness and engagement*

Treatment readiness is a broad construct that denotes a motivation to change and engage in treatment. It also refers to the relevance of treatment and the individual's capability and capacity to engage

(Howells & Day, 2002; Ward et al., 2004). Treatment engagement is influenced by factors such as motivation to change, treatment motivation, treatment readiness and group or therapeutic alliance. Each factor is complex, encompassing various characteristics of both client and environment, which are thoroughly explained in the Multifactor Offender Readiness Model (MORM; Ward, Day, Howells & Birgden, 2004; see Figure 2.1). The MORM's intent is to offer a framework in which the offender can be assessed at an individual, environmental and programme level. It considers various internal and external moderators of treatment readiness and motivation, ultimately indicating what needs to be addressed to enhance treatment engagement (Ward et al., 2004).

The MORM external factors include circumstances, location, opportunity, resources, support, programme and timing. These factors are easily facilitated in prison and may underpin higher prison completion rates than in community programmes. The MORM internal factors are cognitive, affective, volitional, behavioural and identity. In forensic populations these factors are clearly problematic in cognitive distortions, including anti-authoritarian stances and mistrust of others associated with antisocial attitudes (Duggan & Kane, 2010), and behavioural and emotional dysregulation.

Figure 2.1: MORM model with TReMoPeD amendments



TreMoPeD amendments are denoted in italics

The MORM has been applied to people with PD. It is based on a Delphi survey of staff and service users' views on matters relevant to engagement in PD treatment (Tetley et al., 2012). The developments in the Treatment Readiness Model for PD (TReMoPeD) includes separating out client-specific and therapeutic-situation external factors, and the addition of trait, relating, co-morbidity and physical internal factors specific to PD. However, neither model makes reference to ethnic and cultural factors, despite acknowledged stigma of mental health difficulties in certain Black and Minority Ethnic populations (Knifton et al., 2013).

Tetley et al.'s (2012) model is arguably easier to apply than the MORM as it outlines how the internal and external factors may

manifest. Tetley et al.'s (2012) examples are by no means exhaustive. However, they are useful prompts for clinician's to consider. Both models reflect the extensive manifestation of treatment engagement that ranges from attendance to active participation, use of strategies outside of sessions, peer support, reflective ability and working relationship with facilitators (Tetley et al., 2011).

The readiness factors outlined in these models offer a means of operationalising treatment engagement, and its associated variables; all of which can be measured. Therefore the extent a client engages in treatment can be evaluated. However there is a need to enhance treatment engagement in order to improve retention rates, and methods of doing this will be summarised next.

### *Interventions to improve treatment engagement*

Despite the adverse outcomes of treatment non-completion, in their review of strategies to reduce premature termination in psychotherapy Ogrodniczuk and colleagues (2005) found only 15 of 39 retrieved studies empirically evaluated motivational strategies. The main focus was on pre-therapy preparation, patient selection methods, and case management strategies. In addition to a dearth in empirical evaluations, Ogrodniczuk et al. (2005) reported mixed results as to their effectiveness. Pre-therapy treatment was found to reduce premature termination of treatment in just over half the

studies; however, these studies were dated between 1970 and 1985. Similarly patient selection and case management appear to positively impact on treatment retention, but there was only one study in each category.

More recent systematic reviews have focused on Motivational Interviewing (MI; McMurran, 2009). McMurran (2009) reported some evidence that MI improves treatment retention and motivation to change in offenders; however, the variation in studies regarding the aims of MI and sample types makes it difficult to conclusively state MI as wholly effective. Rather offenders' different characteristics may be suited to different formats or lengths of MI. With such variation in the length, integrity and fidelity of MI interventions, this is important.

In terms of PD populations, only McMurran, Huband and Overton (2010) appear to have reviewed psychosocial interventions intended to improve treatment retention. However this was a secondary outcome to reviewing non-completion in PD treatment and only two studies were identified. Both studies reported increased treatment retention rates in therapeutic communities following admissions groups, 'buddy' systems and clinic visits (Chiesa, Wright & Neeld, 2003; Birtle et al., 2007).

Although there is a narrow empirical focus on treatment engagement strategies, they are nonetheless embedded in some therapeutic approaches. For example, structured and thorough volitional strategies have been applied in Dialectical Behaviour

Therapy (DBT; Cameron et al., 2014). Thus engagement strategies may be part of the whole therapy rather than a distinct focus of empirical evaluation.

### *This study*

The aim of this study is to review the effectiveness of treatment engagement strategies. This review takes a broader approach than previous reviews in accounting for complex and heterogeneous definitions of, and approaches to, treatment engagement; its associated constructs; and, the related outcome measures. Consequently, in this review we include outcomes of treatment engagement, treatment readiness, session attendance, treatment motivation, therapeutic and group alliance and treatment retention. It is also important to focus on those populations that are hardest to engage to ensure clinical applicability. People with PDs and offenders will be addressed in light of the problems with dropout and adverse consequences of this.

The objectives were to a) identify the engagement strategies evaluated in research; b) determine the quality of the retrieved studies; c) determine whether these engagement strategies improved therapy engagement, attendance, therapist and group relationship and motivation and readiness; and, d) offer a comparison of the engagement strategies with each population.

A full systematic review with robust quality assessments, this review has the potential to support practitioners to identify effective engagement interventions thereby making defensible decisions when establishing early treatment plans.

## METHODS

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were applied to this review to ensure the process followed a universally acknowledged framework (Moher et al., 2009).

### *Eligibility criteria*

Inclusion and exclusion criteria are listed in Table 2.1.

Table 2.1: Review Population, Intervention, Comparator, Outcome (PICO)

<b>Population</b>	Offenders and people with PD over the age of 18 years old were included. There was no restriction to the type of therapy or intervention, nor the treatment phase in which the engagement strategy was offered. In order to address techniques and strategies for this population and their complex set of needs, studies including patients with co-morbid PD and major mental illness were excluded. The offender population was not restricted by offence
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	<p>type however studies including offenders with a major mental illness, or those with medical diagnoses such as HIV, were not included.</p> <p>PDs diagnosed using a validated and structured personality assessment unless patients were admitted to PD units.</p>
<b><i>Intervention</i></b>	Empirically evaluated strategies aimed at enhancing engagement in treatment.
<b><i>Comparator</i></b>	Studies with any type of comparator were included in the review including no intervention, waiting list control, treatment as usual, or an alternative strategy.
<b><i>Study Design</i></b>	<p>Any study design allowing for quantitative evaluation of engagement strategies and a comparator:</p> <ul style="list-style-type: none"> <li>• Randomised Controlled Trial</li> <li>• Quasi-experimental designs</li> <li>• Case Control Study</li> <li>• Cohort study</li> <li>• Pre- and post intervention comparisons</li> </ul>
<b><i>Outcome Measures</i></b>	<ul style="list-style-type: none"> <li>• Treatment attendance.</li> <li>• Treatment completion/non-completion</li> </ul> <p>Structured assessments with standardised and reported reliability and validity measuring:</p> <ul style="list-style-type: none"> <li>• Treatment motivation</li> <li>• Treatment engagement</li> <li>• Treatment readiness</li> <li>• Therapeutic alliance</li> <li>• Group alliance</li> </ul>

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### *Information Sources*

The search was limited to English language publications and reports from any country from 1<sup>st</sup> January 1975 to 8<sup>th</sup> July 2015. In a scoping exercise only 2% of the results were non-English. The search included published and unpublished papers, with the latter monitored for any changes to publication status.

Based on previous reviews (Ogrodniczuk et al., 2005; McMurran, 2009; Tetley et al., 2011) the following electronic databases were searched:

PsycINFO (First accessed on 16/3/2014)

MEDLINE (First accessed on 16/3/2014)

EMBASE (First accessed on 16/3/2014)

National Criminal Justice Reference Service (First accessed on 25/4/2014)

Web of Knowledge (First accessed on 14/4/2014)

Other searches were: European, Canadian, South African and Australasian e-theses portals; Google (Bramer et al., 2013); and websites for the Ministry of Justice, England & Wales, Home Office, England & Wales, U.S. State Department for Corrections, Cochrane Database of Systematic Reviews and the National Institute for Clinical Excellence.

The references of seven relevant systematic reviews were hand searched for further relevant papers. The final stage of the search was to contact four authors in the field of treatment engagement. Two identified authors were either prevalent throughout the search, and therefore this motivation and engagement was an area of expertise; one of whom was also a professor of personality disorder study. The remaining two were authors of unobtainable or unpublished studies retrieved from the search.

Risk of publication bias was managed by broadening the information sources as far as possible for an English speaking researcher.

### *Search*

The search terms used terms relating to PD, offender (prisoner, criminal, antisocial), enhancing engagement (motivation, engagement strategy/technique) and treatment engagement (completion, non-completion, participation, attendance, retention, dropout) (Appendix A).

### *Study Selection*

In the first phase the title was screened to meet the inclusion criteria and was excluded only if it was obvious it did not meet this.

Stage two screened the abstract to determine whether the paper met the criteria threshold of:

- a) clear description of a treatment engagement strategy
- b) clear measurement of the engagement strategy in empirical evaluation
- c) appropriate statistical data analysis

Papers not meeting this threshold were excluded. Any ambiguities of inclusion of the studies were resolved through consultation with the research supervisor.

Each included study then underwent the same systematic quality assessment (Appendix B) by the first author in which the following criteria were assessed to determine low, moderate or high risk of selection bias, performance bias, outcome measurement bias, attrition bias and overall quality:

- Diagnostic screening tool
- Sample exclusions
- Participant recruitment and allocation
- Confounding variables
- Intervention facilitators
- Outcome measures
- Dropouts
- Analysis
- Study duration

- Study follow-up period

This offered a systematic means of confirming that the study did indeed meet the PICO in addition to assessing the robustness of the studies. Therefore at this stage studies could still be excluded for not meeting the eligibility criteria. A second reviewer (a Trainee Forensic Psychologist based in a progression unit for personality disordered offenders in a Category A prison) assessed the quality of 20% of the studies to support the consistency of the assessment process. Intra-class correlation coefficient of 0.891 indicated excellent inter-rater reliability (Fleiss, 1986).

#### *Data Collection Process*

Pre-defined data extraction forms (Appendix C) were used to extract and code data from all included studies. Missing data were dealt with by contacting the first authors in the first instance; however, if unsuccessful, this was left blank to denote its absence. This was then uploaded to the Review Manager 5 (RevMan 5) programme.

#### *Data Items*

The data extraction form covered the following criteria:

- Population
- Setting

- Type of intervention
- Content of intervention
- Duration of intervention
- Comparator
- Outcome measure(s)
- Analysis
- Follow-up
- Risk of bias
- Effectiveness

During data extraction risk of bias was considered more generally and, where appropriate, any risk of bias in individual studies was discussed during the analysis.

### *Data synthesis*

The included studies showed variability in outcome measures, study design and analysis resulting in both clinical and statistical heterogeneity. Therefore specialist synthesis, such as meta-analysis, was not appropriate on the entire data set or for subgroups.

A narrative synthesis reports the findings systematically despite a wide range of designs in retrieved studies (Popay et al., 2006). Good narrative synthesis adheres to key elements of organisation, description, comparison and assessment in which to present the

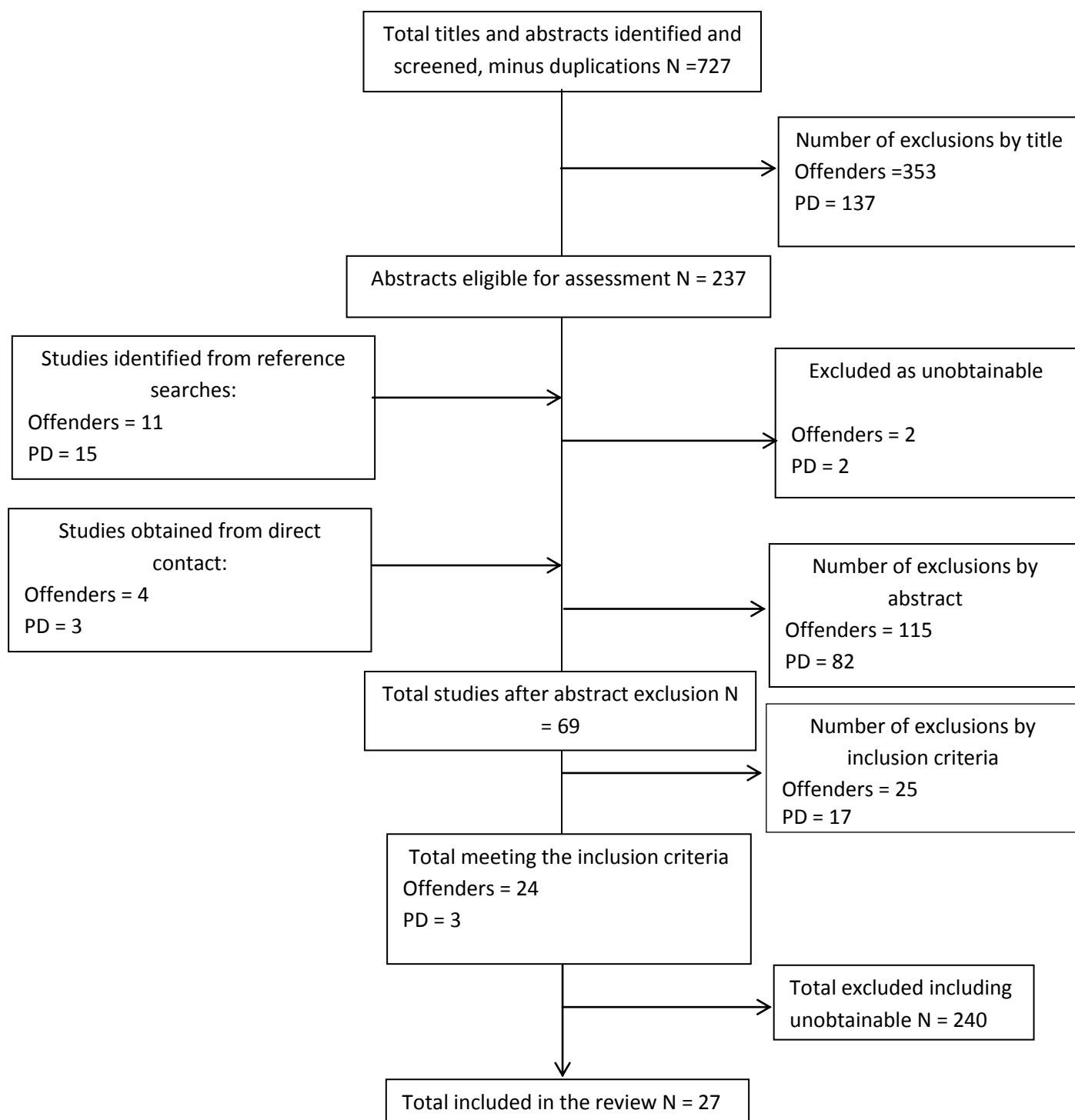
above extracted data within the categories of strategies identified (Popay et al., 2006).

## **RESULTS**

A total of 727 articles were identified, of which 353 offender-focused papers and 137 PD papers were excluded based on the article title, leaving 237 for further examination. From studying the reference lists of the included studies and the excluded systematic reviews, a further 11 papers related to offenders and 15 PD papers were identified based on their titles and 4 offender-focused papers and 3 PD papers were requested from experts in the field. This gave 270 articles in total.

Of these 270 articles, 4 were unobtainable from the library or the first author (Appendix D). A further 115 offender-focused papers and 82 PD papers were excluded after the abstracts were reviewed, leaving 69 for further examination. The remaining 69 articles were read and at this stage a total of 42 studies were excluded. The final number of studies included was 27 of which 3 were dissertation theses.

Figure 2.2: Article selection process



In terms of population, only 3 studies described strategies with PD samples. Within the 24 offender-focused studies, half focused on substance abuse problems, 10 on high-risk or violent offenders and 2 on sex offenders. Of the total, 13 studies used male only populations, 1 used female only and of those that used mixed studies the proportion of males averaged at 77.05%. The studies were categorised by intervention type into nine distinct categories, namely psycho-education; MI; interactive motivational activities; contingency management; sanctioned or mandated treatment; organisational processes; goal-based interventions; treatment readiness groups; and, node-mapping. Of these MI was most common (12 articles).

### ***Psycho-education***

Two studies evaluated the effects of psycho-education on treatment motivation, both with PD populations (Banerjee, Duggan, Huband & Watson, 2006; Long, Fulton & Dolley, 2015). Table 2.2 shows that Banerjee et al. (2006) included male inpatients and mixed gender outpatients. Long et al. (2015) included only women inpatients. Both studies used a similar size sample (see Table 2.2).

Both studies described between 4-6 group sessions of psycho-education focusing on understanding diagnoses and the associated difficulties, linking difficulties with treatment aims, and developing hope in the patient. This was posited to enhance engagement in treatment and develop therapeutic alliance. Pre- and post-



intervention analysis evaluated changes in the therapeutic relationship but using different measures. Banerjee et al. (2006) offered a deconstruction of the facets of therapeutic alliance whilst Long et al. (2015) reported alliances specific to ward staff and participation on the ward. However, it is worth noting that both studies used measures with limited psychometric properties.

Both studies show improved staff relationships yet only with an inpatient population. Banerjee et al.'s (2006) study proved interesting in terms of the positive findings for inpatients but lack thereof for community patients. Banerjee et al.'s (2006) community sample demonstrated only some improvements on certain client-rated facets of alliance and only 'confidence' improved on the therapist-ratings following psycho-education. For the client, an increase in confidence in therapist competency is expected over time as treatment progresses. However, the disparity between client- and therapist-rated bond and partnership scores post-intervention could be explained by poor differentiation between confidence, bond and partnership in the therapeutic process, apparently common in the client (Agnew-Davies et al., 1998).

Long et al.'s (2015) study reported more in-depth findings. Group completers had more positive staff relationships than non-completers, which may be reflective of staff perceptions of those engaging in treatment. Furthermore, the inclusion of a long follow-up

period enabled identification of the positive impact of psycho-education on engagement in future psychological treatment.

Table 2.2: Psycho-education for PD studies

Author	Target Population	Intervention	Sample Size	Duration	Follow-up period	Outcome measure(s)	Outcome	SMS
Banerjee, Duggan, Huband & Watson (2006)	Forensic PD Inpatients (all male) and outpatients (mixed gender)	Psycho-education for PD	18 forensic inpatient s; 16 community patients	4 weeks	-	ARM	Significant changes ARM client- and therapist-rated bond ( $p < .001-.003$ ), partnership ( $p < .020-.002$ ), confidence ( $p < .002-.000$ ) and openness ( $p < .003-.000$ ) subscales in the forensic inpatient sub-population. In community sample, significant changes in client- and therapist rated confidence subscale score ( $p < .002-.015$ ) and in client-rated bond ( $p < .002$ ) and partnership ( $p < .045$ ) subscales.	2
Long, Fulton & Dolley	PD: Female Forensic	Treatment group: 6 sessions of	36	6 weeks	6 months	Attendance; Inpatient/institutional	Analysis of completers and non-completers found completers had better post-	2

(2015)	Psycho- education for PD	behaviour rating scale participation on ward and relationship with primary nurse/staff subscales	group scores on participation on ward ( $t(34)=3.12, p=0.03$ ), relationships with primary nurse ( $t(34)=2.77, p=0.04$ ) and ward staff ( $t(34)=3.15,$ $p=0.03$ ). Completers attended significantly more therapeutic sessions post group ( $\chi^2(1)=14.29,$ $p<0.01$ ) and completed more CBT modules (McNemar test $\chi^2(1)=512.36,$ $p<0.01$ ) than non- completers.
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ARM - Agnew Relationship Measure (Agnew-Davies et al., 1998); CG – comparator group; PD - Personality Disorder;  
SMS – Maryland Scientific Methods Scale (Sherman et al., 2002); TG – Treatment group

The positive outcomes for the inpatient group are encouraging however contrast of these with community samples suggests that the higher staff-contact time for inpatients plays a role in the development of therapeutic relationships. Neither study fully accounts for such confounding variables, including the use of simple means comparison analysis, which weakens the conclusions drawn across the studies.

Indeed, Long et al.'s (2015) use of non-completers as a comparison prompts consideration of the reasons for dropout. Certainly traits of PD, such as interpersonal difficulties, impulsivity, problem-solving and antisocial traits, will affect attendance rates (McMurran, Huband & Duggan, 2008), and what stage of admission inpatients were at is unclear. Controlling for confounding variables, and larger sample size, would be useful in clarifying whether the positive results can wholly be attributed to the intervention rather than, for example, staff contact over time. Nonetheless the preliminary findings are encouraging.

### ***Motivational Interviewing-Based Interventions***

Motivational Interviewing or Motivational Enhancement therapy (MET) was evaluated in 12 retrieved articles. All focused on offending populations. Of these, 8 focused on a community based samples, and 4 on prisoners (see Table 2.3). The number of MI and MET sessions varied between 1 and 6 but all employed MI principles to

develop discrepancy between the client's behaviour and their goals or values (Miller & Rollnick, 1991). This was achieved through open-ended questions, affirmation, reflection and summaries to reinforce change talk; however, the intervention aims differed dependent on the population. For ease, the narrative summary has been categorised by population: general offenders, intimate partner violent offenders (IPV) and substance abusing offenders.

Table 2.3: Motivational Interviewing Studies

Author	Target Population	Intervention	Sample Size	Duration	Follow-up period	Outcome measure(s)	Outcome	SMS
Anstiss, Polaschek & Wilson (2011)	New Zealand Prisoners, high risk males	Treatment Group: MI Control group: Treatment as usual	TG: 58 CG: 58	3-5 sessions	4 years	Criminogenic Needs Inventory Readiness to Change score	MI group had longer time to reconviction than TAU (693 days vs. 464 days). MI group improved by an average of one stage of change, whilst the control group stayed the same ( $f(1,89)=9.78$ , $p<0.01$ , $\eta^2=.23$ ). No significant difference between the referrals to prison programmes following MI or TAU ( $\chi^2(1)=0.56$ , NS). When subgroups were explored, a group receiving no intervention showed significantly poorer recidivism outcomes than the MI-only group ( $\chi^2(1)=4.9$ , $p<.05$ ) and the MI and criminogenic programme group	4

							( $\chi^2(1)=3.9, p<.05$ ).	
Austin, Williams & Kilgour (2011)	New Zealand Prisoners, high risk males	5 sessions of a Short Motivational Programme	38	5 weeks	3-12 month follow-up	SMP URICA	Statistically significant increase of SMP URICA score from pre- to post-SMP (37)=2.99, $p<.05$ (two tailed), this yielded a small to medium effect size (Cohen's $d=.31$ ). For pre-, post- and follow up scores there was a significant main effect for time (Wilks' Lambda =.61, $f(2, 10)=3.15, p<.15$ ), which yielded a large effect size ( $\eta^2s=.39$ ).	3
Crane & Eckhart (2013)	Probationers: males on an IPV treatment programme	Treatment group: 1 session of Brief Motivational Enhancement Comparator: TAU	TG: 48 CG: 34	60 minutes	6 months	Compliance with standard intervention, readiness to change from the Safe at Home scale and attendance	BME participants were more likely to attend an intake session (OR = 8.5; $\chi^2(1,N=79)=5.30, p=.03, d=0.50$ ) and 6 <sup>th</sup> BIP session (OR=2.9; $\chi^2(1,N=74)=4.78, p=.03, d=0.52$ ) than control group but there was no significant difference at session 13, 20 or 26. BME participants attended the	5



							intake session significantly earlier than the control group ( $U=357.5$ , $z=2.44$ , $p=.02$ ( $d=-4.05$ ) and attended more sessions than control participants $U=499.5$ , $z=1.71$ , $p=.09$ ( $d=2.39$ ). Readiness to change alone was not predictive of TAU compliance ( $z=1.1$ , $p=.29$ ) but did predict number of sessions attended ( $\beta=9.97$ , $t(73)=2.75$ , $p<.01$ ).	
Easton, Swan & Sinha (2000)	American Offenders: Domestic violence offenders mandated to 10 weeks of community treatment related to offence	Treatment group: 1 session of Motivational Enhancement Intervention replaced session 9 in standard treatment Comparator: Standard treatment	TG: 22 CG: 19	60 minutes	Follow-up sessions offered but not accepted	Self-reported motivation to change survey (adapted from RC subscale of SOCRATES)	Significant change in pre- to post-intervention scores on the motivation to change scores ( $t(1, 18)=3.26$ , $p<.004$ ). The control group yielded insufficient data for analysis.	2

Ginsburg (2000)	Canadian male inmates, alcohol-dependent	Treatment Group: MI Comparator: No treatment	TG: 42 CG: 41	90-120 minutes	1 week	Readiness scores in the SOCRATES, RCQ, URICA	MI group showed greater problem recognition scores ( $F(1,65)=5.61, p<.05$ ) and showed a greater move from pre-contemplation to contemplation than the control group ( $F(1,9)=7.31, p<.05$ ). However RCQ pre-contemplation scores were not significantly lower post-treatment than the control group ( $F(1, 50)=3.68, p=.06$ ). No significant group differences on URICA scores.	5
Harris (2006)	American DUI offenders attending substance abuse treatment across 1 of 4 outpatient	Treatment group: 2 session MI Comparator: 26 week TAU	TG: 48 CG: 50	2 weeks	3 month	CEST (post), Counsellors' rating of client participation (post), compliance (number of urine analyses),	No differences between groups in number of days abstinent ( $t(96)=-0.14, p=0.93$ ), retention ( $F(1,83)=.26, p=.61$ ), self-rated participation on the CEST ( $F(1,83)=1.51, p=.220$ ), counsellor rated motivation [ $F(1, 83) = 1.51, p=.220$ and rapport ( $F(1,$	4

	sites, 93% males					duration (number of missed and attended sessions) and retention (enrolled or not enrolled at 3 months)	83)=1.86, $p=.176$ ). Significant differences between groups were found for counsellor rated self-confidence ( $F(1, 83)=6.09$ , $p=.02$ ).	
Kistenmacher & Weiss (2008)	American Offenders: Domestic violence	Treatment group: 2 MI session Comparator: no intervention	TG: 16 CG: 17	2 weeks (1 year study period)	-	Motivation to change abusive behaviour, stages of change questionnaire (precontemplation, contemplation and action scores), dropout rates	No significant difference between group dropout rates ( $p=.18$ ). Despite no differences in motivation to change, MI group action score increased significantly pre- to post-intervention compared to control group ( $p=.03$ ).	5
Lincourt, Kuettel,	American Offenders:	Treatment group: 6	TG: 75	6 weeks (2 year	-	Completion and	MI group was significantly more likely to complete	4

Bombardier (2002)	court mandated to substance abuse treatment, 86% male	sessions of Motivational Enhancement programme Comparator: standard treatment	CG: 92	study period)		attendance	treatment ( $\chi^2=10.13$ , $p=.001$ ), missed significantly fewer sessions (3.8 vs. 5.8, $p=.003$ ) and attended a higher proportion of sessions (83% vs. 76%, $p=.005$ ) than those in standard treatment. MI Group predicted attendance ( $F(1,159)=4.08$ , $p=.045$ ) and completion ( $F(1,159)=6.61$ , $p=.011$ ).	
Murpy, Linehan, Reyner, Musser & Taft (2012)	Offenders: American partner violent men in community group CBT treatment	Treatment group: 2 sessions of MI Comparator: intake interview and TAU	TG:40 CG: 43	2 weeks	6 months	WAI, Assignment Compliance Rating Scale, stages of change indicator, Safe-At-Home Instrument for Assessing Readiness to Change	The MI group demonstrated progress through the stage of change ( $r=0.06$ , $N=39$ , $p=.71$ ) whilst the TAU group remained stable ( $r=0.87$ , $N=39$ , $p<.001$ ). Participants in MI completed more CBT homework than TAU group. No association between contemplation and working alliance in the TAU group ( $r=.16$ , $N=41$ , $p=.330$ ) but	3

					Intimate Partner Violence, TAU session attendance	there was in the MI group ( $r=.48$ , $N=39$ , $p<.01$ ).	
Scott, King, McGinn & Hosseini (2011)	American domestic abusers enrolled in Duluth-style batterer intervention, males	Treatment group: MET Comparator: TAU only	486 total, individual group numbers not reported	16 weeks -	Counsellor rated success; treatment completion	Resistant clients in MET were significantly less likely to dropout than standard group resistant clients ( $\chi^2=[1,N=137]=15.96$ , $p<.001$ ) and non-resistant clients ( $\chi^2=[1,N=362]=7.83$ , $p<.01$ ). Resistant clients in MET were 10.13 times more likely to complete treatment than resistant clients in standard group and 4.93 times more likely to complete than non-resistant standard group clients. No significant impact of the MET group over standard intervention on counsellor rated success	3

							F(2,197)=1.87, NS).	
Vanderburg (2002)	Canadian inmates: prisoners eligible for pre-release substance abuse programme	TG 1: 1 session MI interview TG 2: 1 session control interview Control group: no-interview	T1: 32 T2: 32 CG: 32	1 week	26 weeks	RCQ - Treatment Version; SOCRATES; URICA, Process of change questionnaire- substance version, facilitator programme ratings	Significant interaction of condition and testing time was yielded on the RCQ action scores ( $F(2,83)=5.32$ , $MSE=1.25$ , $p<.05$ ) in favour of MI condition and the MI group had significantly greater action scores at phase 2 than the other conditions ( $F(2,83)=4.27$ , $MSE=10.63$ , $p<.05$ ). MI group scored significantly higher on the process of change behavioural subscale than the interview control ( $t(91)=3.70$ , $p<.025$ ) and the control group ( $t(91)=2.51$ , $p<.025$ ). No significant differences in group or time on SOCRATES scores but main effect of testing time ( $F(1,81)=4.61$ $MSE=5.99$ , $p<.05$ ). No significant	5

							difference between groups on URICA scores in phase 1 and 2 but a main effect of testing time at phase 3 (F(2,94)=12.76, MSE=73.94, $p<0.01$ ). No significant difference in between group attendance and completion rates.	
Zalmanowitz, Babins-Wagner, Rodger, Corbett & Leschied (2012)	Canadian male perpetrators of domestic violence, mandated to the Responsible choices for men group	TG: 2 sessions of MI and stages of change Comparator: TAU	TG:105 CG: 106	2 weeks	14 weeks	Attendance	Number of group sessions attended was higher for MI group (approached significance at 0.05 level).	3

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CBT – Cognitive Behavioural Therapy; CEST - Client Evaluation of Self and Treatment (Simpson & Bartholomew, 2008); CG – comparator group; DUI – Driving Under the Influence; MET – Motivational Enhancement Therapy; MI – Motivational Interviewing; MSE – Mean Standard Error; RC – Readiness to Change; RCQ- Readiness to Change Questionnaire (Heather &

Rollnick, 1993); SMP – Short Motivational Programme; SMS – Maryland Scientific Methods Scale (Sherman et al., 2002); SOCRATES – Stages of Change Readiness and Treatment Eagerness Scale (Miller & Tonigan, 1996); TAU – Treatment as Usual; TG – Treatment group; URICA – University of Rhode Island Change Assessment (DiClemente & Hughes, 1990); WAI – Working Alliance Inventory (Hovarth & Greenberg, 1989)



### *General Offenders*

Two studies focused on general high-risk prisoner populations in New Zealand. Both studies used MI to enhance motivation to change or engage in changes reducing risk of reoffending, as measured by readiness and motivation to change outcomes. Austin, Williams & Kilgour (2011) reported a small sample size and no comparator group; limitations recognised by the authors. Anstiss, Polaschek & Wilson (2011) present a more rigorous study (see Table 2.3). Both studies applied a similar number of MI sessions and different, but valid, stages of change outcome measures were used. Austin et al. (2011) additionally measured desirable responding, which is useful when measuring a transparent construct like motivation. Group participants were not found to respond in a socially desirable manner.

Both studies accounted for confounding variables using multivariate analyses, adding strength to the overall findings that brief MI sessions improved motivation to change (see Table 2.3). However, the stages of change measures have been criticised for lack of relevance and validity with an offending population (McMurrin, 2009). Furthermore, the Transtheoretical Model (TTM; Prochaska & DiClemente, 1983) that underpins the stages of change measures is criticised for outlining stages as consecutive stages rather than dynamic (McMurrin, 2009). In this sense the model, and its measures, are limited.

Practically, participants start in different change stages and those in the more advanced stages (action) will find it difficult to demonstrate progress (to maintenance) without participation in treatment, as in Austin et al. (2011). Conversely, Anstiss and colleagues' (2011) participants were in treatment and, in the context of criticised outcome measures, actual treatment attendance and performance measures would be useful.

Anstiss et al. (2011) analysed subgroups of participants attending MI only; OBP only; and, MI then OBP. This found that MI followed by an OBP was equivalent in reducing reconviction and imprisonment rates to MI alone; both better than the non-MI group. These findings place MI in good stead for consideration as a standalone treatment. Austin et al.'s (2011) study similarly reported improvements in motivation to change however with a smaller effect size. The authors attributed this to higher risk level of the population.

Longer-term benefits of MI were poorer. Anstiss et al. (2011) found the MI group did not attend more prison programmes than the non-MI group during the follow-up phase and Austin et al. (2011) reported stability in motivation to change but low follow-up figures.

Improvements in motivation to change have followed MI in both studies. However, we can infer from the studies that the impact of MI differs dependent on risk-levels, with higher risk offenders needing more intensive support (Austin et al., 2011). Methodological

shortcomings in this particular study limit the validity of the results and both studies might benefit from repeated monitoring to determine the process of change.

### *Intimate Partner Violence (IPV) Offenders*

In total six studies used MI with IPV offenders and mainly aimed to increase treatment compliance, participation and engagement with a view to reducing recidivism and changing violent attitudes. Readiness and motivation to change were measured alongside outcome measures related to domestic abuse. Two RCTs and four quasi-experiments made up this category (see Table 2.3). All studies evaluated community-based participants and all but two reported on two MI sessions additional to IPV treatment programmes. Easton et al. (2000) and Crane and Eckhart (2013) evaluated just one motivational session. The latter replaced session 9 of a 10 week domestic violence programme, specifically the substance use and violence session, with MI. MI's more empathic, non-judgemental approach was the only reason offered for why MI was embedded so late in the group.

All studies included a comparison group which was mainly standard treatment (see Table 2.3). However, Easton et al. (2000) were unable to run between group analysis due to a shortfall in the comparison group therefore ran pre- and post-MI analysis. One difference between studies was the outcome measures applied (see

Table 2.3). It is also worth noting that Scott et al. (2011) used the same therapists to deliver both MET and standard treatment group, which could bias results by contaminating the delivery.

Completion and attendance improved following MI interventions (Scott et al., 2011; Zalmanowitz et al., 2012; Crane & Eckhart, 2013), with the exception of Kistenmacher and Weiss's (2008) Randomised Controlled Trial (RCT) , whose population was also mandated to treatment. Positive early outcomes on measures of stages of change are reported for the MI groups (see Table 2.3) (Easton et al., 2000; Kistenmacher & Weiss, 2008; Murphy et al., 2012; Crane & Eckhart, 2013). Kistenmacher and Weiss (2008) reported increases in earlier stages of change (pre-contemplation and contemplation) and concurrent increases in later stages of change (action) following MI. Rather than indicating decompensation or resistance, the authors suggest this depicts the process of readiness.

Crane and Eckhart (2013) measured treatment readiness in the initial battery of measures and reported that those with lowest readiness and the greatest ambivalence benefitted the most from MI. Murphy et al. (2012) similarly reported that two sessions of MI best supported the most unengaged: those scoring higher on contemplation stage of change and those with higher anger levels. However, these results were only observed in post-hoc analysis.

Within studies results paint a mixed picture. Scott et al. (2011) reported higher completion rates following MI compared to the

standard group participants yet counsellor-rated success in treatment was low. Without qualitative data from the client it is difficult to determine the reason for this difference. Kistenmacher and Weiss (2008) reported no difference in attendance rates or overall motivation to change between groups, but did report an increase in 'action' score following MI.

The longer-term effects of MI with IPV samples are poor. Crane and Eckhart (2013) reported less time to start IPV treatment and increased IPV treatment compliance following MI but this decreased by the 13<sup>th</sup> week. This study applied only one brief session of MI and perhaps dose-response should be considered. However a decrease in the effects of MI over time is reported in other studies (Easton et al., 2000; Scott et al., 2011; Zalmanowitz et al., 2012; Murphy et al., 2012; Crane & Eckhart, 2013). Furthermore, Easton et al.'s (2000) late application of MI leaves insufficient time to determine the success of the MI treatment without a follow-up interview. A lack of reduction in reoffending widens the narrative to think about the fluidity of motivation during treatment, particularly if MI strategies are not used throughout (Murphy et al., 2012; Crane & Eckhart, 2013).

The acknowledged contrast of approach in MI (empathic and non-judgemental) and IPV treatment (traditionally 'judgemental') (Crane & Eckhart, 2013) might result in a counteraction effect, contributing to both poor follow-up and long-term outcomes. Of

course being mandated to treatment may present other difficulties for voluntary involvement in research.

A point of interest is Kistenmacher and Weiss' (2008) finding that participants did not score in a linear fashion on the stages of change measure. This further indicates that progression through stages of change may not be a valid outcome measure of motivation to change.

Despite small sample sizes and measurement issues there are parallels in results across studies in terms of stronger initial results and weaker long-term results.

### *Substance Abusing Offenders*

Four articles described MI aiming to improve readiness to commit to changing substance use and enhance treatment engagement. This was measured by movement between stages of change, readiness to change, treatment compliance, participation, completion and attendance. Half of the studies focused on a community population (Lincourt, Kuettel & Bombardier, 2002; Harris, 2006) and half on Canadian inmates (Ginsburg, 2000; Vanderburg, 2002). Only Harris (2006) used a mixed gender population. Three were RCTs however also were unpublished dissertation theses (Ginsburg, 2000; Vanderburg, 2002; Harris, 2006), and one used a quasi-experimental design (Lincourt et al., 2002).

All RCT sample sizes were below 100 participants, which the authors highlight offered limited power to detect significant effects or generalise to the population. In contrast, Lincourt et al. (2002) used a much larger (N=167) mixed sample but not as robust a study design. Furthermore, the three RCTs did take measures to ensure good treatment integrity and fidelity, which was not widely practiced in all MI studies. Whilst Lincourt et al.'s non-randomised study could not control for selection or observer biases, analysis did account for confounding factors.

Although the length of MI intervention varied more across studies compared to previous categories (1-6 sessions), all employed a comparison group of either standard treatment or no treatment. As with previous studies, different outcome measures were used and Lincourt et al. (2002) focused only on completion and attendance, whilst Harris (2006) was the only study to include therapist ratings alongside the Client Evaluation of Self and Treatment (CEST). This measure is considered to have reasonable psychometric properties. Validated stages of change measures differed between studies and despite concurrent validity between measures, results were varied.

No study using the University of Rhode Island Change Assessment (URICA) reported a significant change in scores on this measure. This measure does not refer to alcohol in its items and therefore does not necessarily have the same transparency as the other stages of change measures which may explain a lack of results.

Ginsburg (2000) and Vanderburg (2002) reported similarities in improvements in Readiness to Change (RC) scores yet Vanderburg (2002) reported no change in Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES) scores. Significant changes on the RC scores related to later stages (action) rather than earlier stages.

That said significant group differences were restricted to MI and the no-interview control group, suggesting that MI and the interview control group offered the same benefits to participants (Vanderburg, 2002). Similarly, the process of change questionnaire yielded improvements following MI and interview control. In light of the similar findings between MI and interview control, MI as the only driver of change has to be queried.

A mixed picture of attendance, completion and dropout was also observed: Lincourt et al. (2002) was the only study to report increased attendance and completion rates following MI.

Harris' (2006) results are somewhat of an anomaly in terms of finding a significant difference between groups on only one outcome - counsellor rated self-confidence scores. However this measure offered further evidence that MI has a greater impact on more problematic populations, specifically recidivists over first time offenders. Ginsburg (2000) further supported the notion that MI showed the greatest improvements with more problematic participants, but only in terms of problem recognition scores.



Harris (2006) develops our understanding of the nuances of process of change by reporting an inverse relationship between self-confidence, which was lower in recidivists, and problem-recognition or desire for help. Indeed, recognition of a problem may be overwhelming and result in low self-confidence. Similarly, the varied results on stages of change measures again suggest the stages are not linear but transient and multi-dimensional.

Studies in the substance misuse offender category show more mixed results on all outcome measures than other categories. One reason for this may be current substance abuse as an obstacle to therapy however this is not reported. Study weaknesses exist in this category. The three theses were mainly conducted by the doctoral candidate, including data collection, analysis and in some cases interviews, therefore blinding to group allocation was impossible. In addition, the studies were limited in the length of intervention and follow-up period due to time constraints for the students. This, and non-peer reviewed articles somewhat weakens the findings in this category.

### ***Interactive Motivational Activities***

Motivational games were described in two RCTs with substance abusing probationers (Czuchry & Dansereau, 2005; Czuchry, Sia & Dansereau, 2006). Harkins et al. (2008) described experiential role play and scene work from Geese Theatre's drama workshops with

male prisoners in a pre- post-intervention design. The motivational games intended to enhance treatment readiness and motivation. This was measured by self-evaluation at intake and treatment and an assessment of progress used for the standard treatment. The drama workshop aimed to enhance motivation to change and behaviour change; therefore, Harkins et al. (2008) measured stages of change, behaviour and engagement.

The games used in Czuchry et al.'s studies (2005; 2006) were delivered across three monthly sessions and included the 'downward spiral' board game outlining the effects of drug use on life areas, strength exploration and problem-solving activities, and relaxation and visualisation activities. Despite the similar robust methodologies in the first two studies, the 2006 paper has a much larger sample size and more structured and robust outcome measures at least in the form of the CEST (see Table 2.4).

The 2006 study also made it clear that men and women were treated by different facilitators, which is not detailed in the 2005 study. A final difference was two consecutive administrations of motivational games with two of the four communities evaluated in the 2005 study but not 2006. It is unclear how this contributed to improvements in treatment motivation because the length of time between assessment periods did not allow for close monitoring of the process of change.

Both studies reported a pattern of positive results in favour of the experimental group on all outcome measures. However these were not maintained across time, particularly treatment readiness (see Table 2.4). Whilst this may denote a transition from readiness to active engagement, the 2005 study also noted a decline in treatment involvement. In the 2006 study, overall females yielded more significant positive results, which were maintained for longer.

Harkins et al.'s (2008) brief 3 day drama workshop only reported short-term outcomes using the URICA. Although the study was sufficiently powered, there was no comparison group. Therefore whilst motivation and engagement improved it is difficult to claim causal effects of the intervention. Conceptually, role-playing significant life skills such as interpersonal, occupational and pro-social skills is likely to increase confidence in these areas. However a longer follow-up period would further clarify the participant's positive qualitative feedback. In addition, a wider range of more relevant measures, including confidence in treatment or self, would better understand the impact of the intervention.

These interactional strategies have positive short-term outcomes in terms of motivation and engagement however the fact remains that all studies are limited in terms of long-term outcomes. This would have been valuable in understanding the extent to which these brief interventions were effective.

Table 2.4: Interactive Motivational Games Studies

Author	Target Population	Intervention	Sample Size	Duration	Follow-up period	Outcome measure(s)	Outcome	SMS
Czuchry, Sia & Dansereau (2006)	American probationers entering residential rehabilitative substance-related treatment, 31% female	Treatment group: 3 sessions of motivational games and activities Comparator: Standard treatment	TG: 143 CG: 151	3 months	6 months	CESI (treatment readiness); CEST (Program participation scale)	Probationers receiving enhanced treatment maintained more of their treatment readiness over time. Females reported higher treatment readiness scores at both intake ( $F(1, 275)=19.00, p<.0001$ ) and 3 months into treatment ( $F(1, 275)=37.10, p<.0001$ ) but also maintained their improvements better than males ( $F(1, 275)=4.07, p<.05$ ). Generally treatment readiness decreased over time ( $F(1, 275)=143.66, p<.05$ ).	5
Czuchry &	American	Treatment group:	TG: 97	4 months	2 months	Motivation for	Probationers who received	5

Dansereau (2005)	probationers entering residential treatment for substance use (therapeutic community model), 73% males	3 sessions of enhanced treatment and motivation techniques Comparator: Standard treatment	CG: 49			treatment involvement and confidence in treatment involvement assessment designed for CETOP project	the enhanced treatment had more favourable outcomes at month 4 on treatment involvement ( $F(1, 144)=7.51, p<.01$ ) and motivation scores increased between months 2 and 4 ( $F(2, 143)=3.60, p<.05$ ). Ratings for treatment involvement were not sustained at 6 months ( $F(2, 141)=1215.79, p<.0001$ ).	
Harkins, Pritchard, Haskayne, Watson & Beech (2008)	UK male prisoners	Re-connect drama group	113	3 days	-	URICA and behaviour and engagement	Motivation to change improved significantly from pre- to post-intervention ( $t(46)=2.5, p=.015$ ). Significant improvements in behaviour and engagement ( $F(2, 148)=8.4, p<.001$ ).	2

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CESI - Client Evaluation of Self at Intake (Simpson & Chatham, 1995); CEST - Client Evaluation of Self and Treatment (Simpson & Bartholomew, 2008); CETOP – Cognitive Enhancements for Treatment of Probationers; CG – comparator

group; SMS – Maryland Scientific Methods Scale (Sherman et al., 2002); TAU – Treatment as Usual; TG – Treatment group; URICA – University of Rhode Island Change Assessment (DiClemente & Hughes, 1990)

## ***Contingency Management***

Two studies used rewards in substance abuse treatment to address target treatment goals (Hall et al., 2009), or attendance and engagement in treatment (Sinha et al., 2003). Although Hall et al.'s (2009) quasi-experimental design only measured treatment completion; Sinha et al.'s (2003) RCT also measured motivation to change on the SOCRATES. Hall et al.'s (2009) large sample size was divided into four groups: a) rewarded for negative drug screens; b) rewarded for achievement of treatment goals; c) rewarded for both drugs testing and achievement of treatment goals; and, d) control group (see Table 2.5). Dependent on the group, the maximum potential for voucher earnings varied slightly and there were delays of up to four days after the target behaviour in receiving the voucher.

Sinha et al. (2003) had a smaller sample however participants were randomly assigned into those who received vouchers alongside MET and MET alone. Of course, voucher rewards alongside MET confuse the extent to which engagement is attributed to voucher rewards alone. Similarly the participants were referred from the drug court and therefore actual or perceived mandated treatment may override the contingency management effect.

Sinha et al. (2003) reported higher treatment completion rates in the experimental group and although SOCRATES scores increased pre- to post-treatment there was a main effect of time, indicating the treatment's general ability to move an individual through the stages

of change. Conversely, Hall et al. (2009) did not find significant differences between groups in completion or negative drugs screenings, and this was over a longer duration (see Table 2.5).

Although contingency management is recommended by the NICE guidelines for drug treatments (2007), its feasibility in the current economical climate is a service-level consideration and there is mixed evidence that it is an effective strategy with offenders. Completion rates were seen to improve following MET with substance users; yet, the inclusion of a no treatment group in Sinha et al.'s (2003) study would have provided a clearer understanding of the impact of contingency management. Furthermore, the lack of positive outcomes in Hall et al.'s (2009) study may be linked to a delay in receipt of the reward following the behaviour. Although both studies use robust study designs, there is a need to account for possible confounding variables and bias.



Table 2.5: Contingency Management Studies

Author	Target Population	Intervention	Sample Size	Duration	Follow-up period	Outcome measure(s)	Outcome	SMS
Hall, Prendergast, Roll & Warda (2009)	Offender: in substance treatment programmes, mixed gender	Treatment group 1: \$10 vouchers for each negative drugs test Treatment group 2: \$10 vouchers for each completion of treatment plan tasks Treatment group 3: \$10-20 vouchers for each negative drugs test and/or treatment plan task completion	TG1:35 TG2:34 TG3:30 CG: 37	26 weeks	-	Completion	Each group earned less than half the maximum possible amount. Differences in completion and retention across groups was not significant ( $p=.63$ ). No difference between groups for negative drugs testing ( $\chi^2=1.85, df=3, p=.60$ ).	4

		Control: no vouchers, standard treatment						
Sinha, Easton, Renee-Aubin & Carroll (2003)	American probationers referred to substance abuse treatment, 93% male	Treatment group: 3 sessions of motivational Enhancement Therapy with Contingency management Comparator: 3 sessions of MET alone	TG: 28 CG: 37	3 sessions time frame not defined	1 month	SOCRATES, Session attendance and completion	Treatment group attended more sessions (1.8 vs 2.3, $p < .07$ ) and significantly more completed treatment compared to comparison group ( $X^2 = 3.85$ , $p < .05$ ). Pre-contemplation SOCRATES scores did not yield a significant main effect for group or group by time but did yield a significant main effect of time ( $F(2,29) = 3.1$ , $p = 0.053$ ) at both post-treatment and follow-up compared to pre-treatment scores.	5

CG – comparator group; MET – Motivational Enhancement Therapy; SMS – Maryland Scientific Methods Scale (Sherman et al., 2002); SOCRATES – Stages of Change Readiness and Treatment Eagerness Scale (Miller & Tonigan, 1996); TG – Treatment group

### ***Court Sanctions/Mandated Treatment***

Treatment coercion, although not an engagement strategy per se, has been evaluated as such. Offenders are frequently mandated to treatment - or perceive themselves to be - through court orders, sentence planning and official assessments. Therefore, although not a therapeutic intervention, two studies evaluated the effect of mandated versus voluntary treatment (Coviello et al., 2013) or threat of a suspended 120 day sentence versus no custodial sentence (Hepburn & Harvey, 2007). Outcomes were drug treatment attendance and completion and the focus was community-based male substance abusers.

Both studies used large sample sizes and quasi-experimental designs (see Table 2.6), yet have yielded mixed results in terms of treatment retention and completion. Hepburn and Harvey (2007) found no evidence that the threat of a custodial sentence affected retention or completion, whilst Coviello et al. (2013) reported increased retention and completion even in the absence of motivation at treatment entry.

Hepburn and Harvey's (2007) participants were referred by drugs courts regardless of group. Their population had the highest percentage of prior convictions between the two studies (77-88%) and it is likely that even those in the 'no threat' category had experienced the criminal justice system before, therefore may have

perceived some level of threat. Coviello et al.'s (2013) comparison group of treatment volunteers minimises such confusion.

Covellio et al (2013) reported that mandated clients had lower initial internal motivation yet better completion rates. Repeated measures of motivation would have been useful in exploring whether attendance was a basis from which motivation and engagement developed, either by therapist efforts or therapy experience. That said, Covellio et al. (2013) reported only 45% continued to engage in the ongoing outpatient treatment. Hepburn and Harvey (2007) similarly noted declined attendance over time and acknowledged external pressures such as employment and housing as obstacles.

Indeed mandated treatment normally contributes to a full sentence or treatment plan which may prioritise other areas over treatment. Matched comparison groups could have resolved some of these issues. Furthermore a more extensive battery of measures of motivation would have added depth to our understanding of changes recorded in Coviello et al.'s study (2013).

Table 2.6: Coerced Treatment Studies

Author	Target Population	Intervention	Sample Size	Duration	Follow-up period	Outcome measure(s)	Outcome	SMS
Coviello, Zanis, Wesnoski, Palman, Gur, Lynch & McKay (2013)	Offenders: on outpatient drug treatment programme, 92% male	Treatment group: Treatment mandated (82%) Control group: not mandated (18%)	160	6 months	-	Treatment completion, Addiction Severity Index (Motivation for treatment composite score)	Treatment completers were significantly more likely to be mandated to treatment ( $\chi^2=8.5$ , $df=1$ , $p=.004$ ) and 10 times more likely to complete treatment (OR=10.9, CI=2.0-59.1, $p=.006$ ). Mandated clients were less likely to be motivated for treatment than voluntary group ( $\chi^2=5.6$ , $df=1$ , $p=.018$ ).	3
Hepburn & Harvey (2007)	American offenders referred to drug treatment through	Treatment group: 120-day suspended jail sentence Comparator:	TG: 215 CG: 259	120 days	21 months	Treatment attendance – 90 day retention after entry and 180 day	No significant group differences in number of days in treatment ( $t=0.247$ , $p>.05$ ) or in survival probability of probationers (Wilcoxon statistic = 0.197,	3

court,  
74.87%  
male

could not be  
ordered to  
serve jail time

retention  
after  
treatment

$df=1, p>.05$ ). There was  
no significant group  
difference in number of  
programme completers  
( $p>.05$ ).

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CG – comparator group; OR – Odds Ratio; SMS – Maryland Scientific Methods Scale (Sherman et al., 2002); TG – Treatment group

### ***Organisational processes***

Individual services apply ad-hoc strategies to value, encourage, motivate and inevitably follow-up clients. These strategies are unlikely to be written into service protocols, but include handwritten notes, telephone calls and service information. Only one quasi-experimental study evaluated such treatment retention strategies including handwritten notes and telephone calls to welcome the participant to the group and follow-up on missed sessions (Taft et al., 2001). The effect on treatment motivation and engagement was measured by session attendance and recidivism rates.

A large sample of domestic abusers was evaluated against a control group for attendance and dropout in IPV treatment over a reasonable study period (see Table 2.7). Importantly the analysis also controlled for confounding variables and still found that treatment retention strategies increased attendance and reduced dropout in the experimental group. Positive clinical outcomes in terms of lower reported physical assaults and recidivism rates were also reported. This reflects Crane and Eckhart's (2013) suggestion that this population are particularly vigilant to negative judgements and so may be best placed to respond to these directly personal strategies.

It is unclear whether regular follow-up phone calls create the perception of 'checking up', which is particularly significant for court-referrals. The previous mixed results from studies on court mandated



clients contravenes this somewhat, however more and different outcome measures would clarify this. For example treatment motivation or engagement measures, qualitative data and repeated assessment times would have offered more robust understanding of the process of change.

Table 2.7: Organisational Process Studies

Author	Target Population	Intervention	Sample Size	Duration	Follow-up period	Outcome measure(s)	Outcome	SMS
Taft, Murphy, Elliott & Morrel (2001)	American Offenders: male perpetrators of domestic abuse in CBT/Supportive therapy programme	TG: Treatment retention (TR) processes (e.g. handwritten notes, introductory phone calls) and CBT/ST Comparator: CBT	TG: 83 CG: 106	16 weeks	6 months	Session attendance	TR group attended significantly more sessions than TAU ( $F(1, 188)=7.313, p=.007$ , Cohen's $d=.35$ ) and significantly less dropped out than TAU ( $\chi^2(1, N=189)=6.45, p=0.11$ ). When other variables were controlled for, group differences in attendance ( $F(1, 180)=5.153, p=.024$ ) and dropout ( $\chi^2(1, N=189)=4.151, p=0.042$ ) were still significant.	4

CBT – Cognitive Behavioural Therapy; SMS – Maryland Scientific Methods Scale (Sherman et al., 2002); ST – Supportive Therapy; TAU – Treatment as Usual; TG – Treatment group; TR – Treatment Retention

### ***Goal-Based Techniques***

The Personal Concerns Inventory (PCI; Cox & Klinger, 2000) was originally a measure of motivation to change however it has been evaluated as a motivational intervention following positive qualitative feedback from participants (Sellen et al., 2009). The PCI and its variants are based upon the conceptualisation of the goal construct of motivation, underpinned by the Theory of Current Concerns (Cox & Klinger, 2002). This theory focuses on the cognitive and affective processes of active goal pursuit of valued and attainable goals. These principles are encompassed in a structured interview schedule that directs respondents to articulate personal concerns or goals in 11 life areas and rate these on importance, knowledge, commitment, happiness, likelihood and control. The interview was expected to improve motivation to change, treatment engagement and attendance as measured by therapist-rated engagement, stages of change and session attendance.

A short version of the PCI was evaluated with people with PD, diagnosed using the Personality Diagnostic Questionnaire-4 in one outpatient service (McMurran et al., 2013). Sellen, Gobbett and Campbell (2013) and Theodosi and McMurran (2006) evaluated the PCI-Offender Adaption (PCI-OA) and the Personal Aspirations and Concerns Inventory-Offender (PACI-O) respectively with offenders. The offender versions were used with a UK prisoner population.

All three studies were RCTs and compared against a no-intervention (Theodosi & McMurren, 2006) or treatment-as-usual control groups (McMurren et al., 2013). Despite the robust study designs, one key issue across the studies was the limited sample size, acknowledged by all authors. All measures used were validated however different measures were used. The Treatment Engagement Rating Scale used by McMurren et al. (2013) applies a particularly broad approach to engagement. The Staff Treatment Engagement Questionnaire (Campbell, 2009) used in Sellen et al.'s (2013) study has some reliability and validity but was complemented with the GEM-27 (MacGowan, 1997, 2003, 2006), the psychometric properties of which have been evaluated as robust.

McMurren et al.'s study (2013) yielded positive results in engagement, goal clarity and treatment attendance, albeit with a shortfall in sample size. These positive results were not replicated with the PCI-OA or the PACI-O (see Table 2.8). That said non-significant group differences on motivational profiles in Sellen et al. (2013) yielded a small effect size in the positive direction. The authors discuss the possibility that non-significant results highlights sample size as an issue. Theodosi and McMurren (2006) reported no improvement to engagement yet post-hoc analysis found subgroups of offence deniers demonstrated more positive change than accepters (Theodosi & McMurren, 2006). As a population more challenging to

engage in treatment, this suggests the intervention is particularly useful with the most problematic populations.

Sample size is certainly an issue in all three studies yet McMurran et al. (2013) reported qualitative feedback that identified the PCI as successful in clarifying goals and the relevant issues to address in therapy; promoting positivity about the future; and, increasing confidence for group work. It is noted that some also found it intrusive. This qualitative feedback enhances our understanding of the PCI's potential as a motivational intervention, particularly at an individual level.

Table 2.8: Goal-Based Intervention Studies

Author	Target Population	Intervention	Sample Size	Duration	Follow-up period	Outcome measure(s)	Outcome	SMS
McMurran, Cox, Whitham & Hedges (2013)	Outpatients with PD attending psycho-education and problem solving groups at a single centre, 64.47% females	Treatment group: 1 session of PCI interview Comparator: TAU	TG: 38 CG: 38	60-120 minutes	16 weeks	TERs, attendance, goal clarity	The PCI improved attendance rates (Cohen's $d=0.44$ , 95% CI:0.30-0.57) and engagement (Cohen's $d=1.62$ , 95% CI: 0.90-2.33) and goal clarity (Cohen's $d=1.86$ , 95% CI:1.20-2.52).	5
Sellen, Gobbett & Campbell (2013)	UK sex offenders in Cat C prison referred to the Enhanced Thinking Skills Programme	Treatment group: Personal Aspirations Concerns Inventory-Offender version Comparator: Enhanced Thinking Skills	TG: 19 CG: 18	1 interview	1 week of TAU finishing	STEQ, GEM-27, AMP of PACI-O	The PACI-O did not yield increases on engagement scores on the STEQ ( $t(35)=0.47$ , $p>0.05$ , Cohen's $d=0.16$ ) or GEM ( $t(35)=1.10$ , $p>0.05$ , Cohen's $d=0.36$ ). No significant difference	5

only

between pre- and post-intervention AMP scores in PACI-O group ( $F(1, 18) = -1.34, p > 0.05$ ), though effect size was small in the expected direction (Cohen's  $d = 0.35$ ). Between group post-treatment AMP scores showed no significant difference ( $F(1, 35) = 0.95, p > 0.05$ ), though again the effect size was small in the expected direction (Cohen's  $d = 0.31$ ).

Theodosi & McMurran (2006)	UK sex offenders eligible for the Sex offender treatment programme,	Treatment group: Personal Concerns Inventory-Offender Adaption(Treatm	TG: 9 CG: 9	2-6 hours	2 months	URICA, motivational shift, PCI-OA (TR) Readiness to Change	Seven in the PCI-OA group completed the URICA versus nine of the control group. Two PCI-OA group members showed improvements	5
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males	ent Resistant) Comparator: no intervention	Index	on stage of change whilst three in the control group showed improvements. The PCI-OA group were more likely to show a positive motivational shift towards SOTP participation (OR:4.4, 95% CI:0.6-34). Six of eight participants showed an increased RCI score, two showed a decrease.
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AMP - Adaptive Motivation Profile; CG – comparator group; GEM-27 - Group Engagement Measure-27 (Campbell, 2009); PACI-O - Personal Aspirations and Concerns Inventory-Offender version; PCI – Personal Concerns Inventory; PCI-OA (TR) – Personal Concerns Inventory-Offender Version (Treatment Refusers); SMS – Maryland Scientific Methods Scale (Sherman et al., 2002); STEQ - Staff Treatment Engagement Questionnaire (MacGowan, 1997, 2003, 2006); TAU – Treatment as Usual; TERs – Treatment Engagement Rating Scale; TG – Treatment group; URICA – University of Rhode Island Change Assessment (DiClemente & Hughes, 1990)

### ***Treatment Readiness Group (TRG)***

Only one quasi-experimental study evaluated a purpose-made TRG with a mixed gender population of probationers entering substance abuse treatment (Roque & Lurigio, 2009). The group modules (emotion identification, developing and managing social networks, communication, and problem-solving skills) were expected to improve treatment entry, attendance and completion. Although a comparison group was included (see Table 2.9), these participants were not randomised to account for confounding or influencing variables. Indeed, the comparator group was taken from an existing pool of matched participants enrolled in the standard treatment but not offered the TRG sessions. Furthermore, the univariate analysis was unable to account for confounding variables.

Results showed that those in the experimental group entered treatment sooner and stayed in treatment longer (see Table 2.9). Although the long follow-up period increases confidence in the long-term effects of the TRG, it is difficult to conclusively establish the success of the group due to the non-randomised study design, restricted outcome measures and analysis. Certainly readiness measures are a particularly relevant and necessary addition to this study.

Treatment Readiness Groups or at least sessions may be currently implemented across services based on the conceptual argument for their success rather than an existing evidence-base. This study

begins to offer the empirical justification needed to roll out this motivational strategy and there is value in developing this research focus.

Table 2.9: Treatment Readiness Group Study

Author	Target Population	Intervention	Sample Size	Duration	Follow-up period	Outcome measure(s)	Outcome	SMS
Roque & Lurigio (2009)	American probationers in substance abuse treatment, mixed population	Treatment group: TRG Comparator: TASC programme	TG: 3373 CG:3666	30 days	6 months	Treatment attendance and completion	Significant difference in treatment entry between those who attended one or more TRG sessions and those who did not ( $\chi^2[1, N=3,040]=317.134, p<.001$ ). TRG was the only significant predictor of treatment entry ( $\beta=.034$ , WALD statistic=6.232, $p=.013$ ). Significantly higher number of TRG than TASC group entered treatment ( $\chi^2[1, N=6,469]=251.365, p<.001$ ), and completed treatment ( $\chi^2[1, N=3497]=30.24, p<.001$ ).	3

CG – comparator group; SMS – Maryland Scientific Methods Scale (Sherman et al., 2002); TASC – Treatment Alternatives for Safe Communities programme; TG – Treatment group; TRG – Treatment Readiness Group

### ***Node-Mapping***

Node-mapping has been evaluated in one quasi-experimental study with probationers in a residential substance abuse programme (Pitre et al., 1998). Node-mapping aims to enhance motivation through better communication, focused attention and development of therapeutic relationships through collaborative representation of ideas as interconnected nodes. This was measured by self and counsellor-rated engagement (see Table 2.10), neither of which were reported as psychometrically sound. Despite intending to improve therapeutic relationships, this was not included in the outcome measures.

The effects were measured over a reasonable study period and included a comparison group in standard treatment. However analysis was restricted to means comparison and was unable to account for confounding variables.

Improvements in client- and therapist-ratings did not parallel. Therapist ratings improved at mid-term, whereas clients rated improvements at end-term (see Table 2.10). Differences between client and therapist ratings are not wholly unusual within the studies discussed. However a better battery of outcome measures may help explain these discrepancies, not least because results are based on weak outcome measures.

The strategy is low cost yet requires high effort and investment from the therapist, which may drive success bias. This may be one reason for differences in the results. Furthermore, the node-mapping

intervention is set within a therapeutic community, already a positive and progressive setting with a focus on engagement. This explains the increase in motivation regardless of placement in standard or node-mapping intervention. Improvements to the methodology are necessary to build on this study's findings.

Table 2.10: Node Mapping Study

Author	Target Population	Intervention	Sample Size	Duration	Follow-up period	Outcome measure(s)	Outcome	SMS
Pitre, Dansereau, Newbern & Simpson (1998)	American Probationers: in residential substance abuse programme, males	Treatment group: Node-mapping community Comparator: Standard community	TG: 73 CG:73	3 months	4 months	Self and counsellor rated engagement	Between group differences on self-rated treatment participation were only seen at end-term ( $t(34)=2.49$ , $p<.02$ ) and therapist-rated participation at midterm ( $t(34) = 3.61$ , $p<.001$ ). Mapping groups reported being more engaged in treatment than standard groups, but only at end-term ( $t(34)=2.89$ , $p<.01$ ).	3

CG – comparator group; SMS – Maryland Scientific Methods Scale (Sherman et al., 2002); TG – Treatment group

## **DISCUSSION**

This is the first review to directly address evaluated engagement strategies with PD populations and offenders. It also appears to be the first to broaden focus from a specific offence, problem behaviour or strategy. This review aimed to support clinical practitioners to identify evidence-based strategies to drive practice forward with two particularly hard to engage populations. That said, a heterogeneous sample does not offer a solid understanding of which intervention is most effective. Instead the intervention's amenability to population, service type and resources available must be considered.

In terms of PD studies, the focus is restricted. An exclusion criterion of co-morbidity may have contributed to this, considering the high prevalence of co-occurring psychopathology in the population (Coid, 2009). Similarly the high prevalence of PD in a forensic population may account for the lack of specific focus on PD engagement in offender research, if they are inherently addressed within forensic literature.

The female population was also underrepresented in the 11 retrieved studies that used a mixed population (6-64.4% females). Long et al. (2015) was the only study to use a female only population. This may be proportionate to the number of females in a forensic population; however, presents problems in that only 3 of these 11 studies evaluated the effect of gender on engagement. Yet



those that do evaluate treatment engagement in females as a subgroup report preliminary evidence that females are less likely to dropout of treatment, have higher treatment engagement, readiness and rate their own post-treatment success as higher following engagement strategies (Czuchry et al., 2006; Hall et al., 2009). This encourages consideration of this population in their own right.

A wide range of engagement strategies have been evaluated, indicating a development in this field since previous reviews (Ogrodniczuk et al., 2005). Ogrodniczuk et al. (2005) suggested the dearth in dropout prevention strategies in their systematic review stemmed from failure to focus on pre-therapy strategies in early literature. If this is the case, addressing this is not only positive, but the positive results following pre-therapy treatment readiness groups, MI, psycho-education, the PCI and treatment retention techniques in fact suggests value in pre-therapy strategies. A more realistic account for a dearth in evidence-based engagement strategies is that they are discussed as part of the entire therapy process rather than empirically evaluated as an individual strategy or systematic part of therapy.

This review discusses unstructured ad-hoc processes to structured individual or group interventions underpinned by theory-led frameworks. This variation is useful in developing the clinician's toolkit. MI remains the most evaluated strategy in the literature,

however more options enable better responses to variation in availability of resources, knowledge and finances between services.

In terms of the quality of the retrieved studies there are consistent weaknesses. There is a dearth of robust randomised-controlled studies, which may relate to the widely experienced difficulties in participant recruitment as well as the high cost of the study design. Certainly there were studies that suggested they may have reported significant results had their sample size been big enough to detect changes (Sellen et al., 2013).

A further issue has been in the use of poor comparison groups. For example the use of MET alongside contingency management (Sinha et al., 2003) and the use of strategies in residential settings or therapeutic communities in which working alliances are already a focus (Pitre et al., 1998; Czuchry et al., 2006). Working alliances are essential to the development of engagement through empathy, support and the development of trust, as well as essential in progress through treatment in terms of the establishment of collaborative working (Ardito & Rabellino, 2011). A more considered approach to comparison groups would provide a better understanding of the effectiveness of the intervention itself.

Above all outcome measures form the most consistent problem across studies. A variety of different measures across studies is expected considering how multi-faceted motivation and engagement are. In this sense, heterogeneity of outcome measures is not

problematic. However, some studies did not directly measure what they were reporting, such as therapeutic alliance (Taft et al., 2001) or treatment readiness (Roque & Lurigio, 2009). Some of these issues may be inherent in the field in terms of ill-definition in existing measures (Tetley et al., 2011; Mossi re & Serin, 2014). It may be that some strategies improved motivation and engagement however changes were not detected because of inappropriate or restricted selection of outcome measures. Full understanding of the process of treatment engagement would comprise of measures of motivation to change or engage in treatment; the existence of these variables would improve treatment engagement and attendance and ultimately leads to better treatment-related outcomes (Drieschner, Lammers & van der Staak, 2004). Each stage of this process is measurable.

The stages of change measures based on the TTM are widely used in the reviewed studies: URICA, SOCRATES and Readiness to Change Questionnaire. Although validated with a substance abusing population these questionnaires, and even the TTM itself, has not been validated specifically with offenders (Casey, Day & Howells, 2005; McMurren, 2009). Despite this, these measures have been applied with such populations, including IPV offenders (Easton et al., 2000; Theodosi & McMurren, 2006; Harkins et al., 2008; Kistenmacher & Weiss, 2008; Anstiss et al., 2011; Austin et al., 2011; Murphy et al., 2012; Crane & Eckhart, 2013). Similarly, the measures are particularly employed in MI evaluations despite Miller

and Rollnick (2009) emphasising that MI is not underpinned by the TTM. Therefore the overall appropriateness of using these measures in these studies is unclear.

The use of stages of change measures is further questioned in light of the mixed results across studies. The URICA consistently yielded non-significant results despite concurrent validity with the other stages of change-based measures. It is one of the only measures in this group not to refer to substance use. Certainly forensic populations have high incentive to present themselves positively, and measures of motivation are transparent and therefore susceptible to desirable responding. Despite this, very few studies employed a measure of desirable responding.

One positive insight offered by the stages of change measures is the nature of movement through the stages. The overall results support the suggestion that individuals progress through the stages in a nonlinear way (McMurran, 2009). Furthermore certain facets of engagement might relate to different stages of change profiles, for example high contemplation alongside high action may be an indicator of readiness (Kistenmacher & Weiss, 2008). This presents an interesting development for future research.

In terms of lasting effects it was hard to determine whether increases in motivation for change led to behaviour change. Spontaneous treatment entry would have been an interesting outcome however most participants were already enrolled or

mandated in treatment. There was promise for the PCI-OA, psycho-education sessions and a treatment readiness group in facilitating treatment entry, albeit based on one study in each category (Theodosi & McMurrin, 2006; Roque & Lurigio, 2009; Anstiss et al., 2011; Long et al., 2015).

Those that aimed to collect follow-up data reported poor follow-up figures and generally changes on outcome measures were not sustained (Pitre et al., 1998; Czuchry & Dansereau, 2005; Czuchry et al., 2006; Crane & Eckhart, 2013). In fact many studies reported a main effect of time, indicating that time and therefore possibly usual treatment itself plays a role in enhancing motivation. Certainly motivation fluctuates during treatment according to internal and external factors, including those related to treatment. Therefore attention to motivation goes beyond the motivational intervention.

Indeed the effect of treatment itself and its potential counteracting effects to motivational interventions may be problematic. Those evaluating IPV offenders have certainly considered how standard treatment can conflict with the motivational intervention in terms of approaches (Crane & Eckhart, 2013), which is likely to impact on long-term effects of the motivational intervention.

In terms of the effectiveness of the motivational interventions some methodological difficulties affect the reliability of the results and present difficulties in reaching a clear overall conclusion. Furthermore, results were not consistent across studies within

categories and many studies presented a mixed picture of treatment engagement. Attendance rates and psychometric measure scores yielded an inverse association in some studies (Vanderburg, 2002; Sinha et al., 2003); a reminder that attendance is not necessarily a reflection of, or starting point for, genuine engagement. Rather it can be influenced by external factors, such as avoidance of negative outcomes (recall to hospital or prison) or achieving something desired (discharge or removal from child protection register).

One consideration for mixed results in the MI category is that interventions follow an ever-developing principle-based approach (Miller & Rollnick, 2009). Therefore differences in delivery across studies may not be explicit but will impact on results. An understanding and application of existing measurements of MI fidelity and integrity would increase confidence in the standard of the intervention yet this was not widespread across all retrieved studies.

Nonetheless MI appears to improve motivation to change, attendance and retention in general, IPV and substance abusing offenders. However this is by no means the only intervention with some effectiveness. Inpatient psycho-education, node-mapping, and interactive strategies yielded increases in motivation to change and engage; yet these findings were based on one or two studies only. Other categories reported contrasting results. For example, mandating clients to treatment and contingency management categories reported both improvements and no change. This is

interesting considering mandated treatment is frequent within the criminal justice system despite little evidence for its success. Similarly the PCI significantly increased treatment engagement with a PD population but not an offending population. This mix of results within categories and the dearth of PD engagement strategies makes it difficult to identify which strategies are most effective, and with whom.

It is worth noting however that all motivational strategies evaluated with a PD population appeared effective. Only outpatients had a reduced response to psycho-education (Banerjee et al., 2006). However, this simply draws attention to the different needs of the client dependent on the situational context.

Across populations only the application of goal-based strategies can be discussed. Offender versions of the PCI lacked the positive results of the PCI with a PD population; however, it is noted that the offender variants of the PCI have weaker psychometric properties than the original PCI (Sellen et al., 2009). This must be considered alongside recognition that the PCI life areas may be perceived as community-focused. McMurrin et al. (2008) identified that self-change was the most prioritised life-area in 129 UK prisoners, followed by employment and finances, and family and relatives. This supports the suggestion that offenders may focus on community goals either too distant or too unrelated from prison treatment

programmes or prison life. Indeed 'offending' was prioritised seventh (McMurran et al. 2008).

Finally, an important finding for future research to consider was the suggestion that the most ambivalent or high risk participants benefited most from the motivational intervention (Theodosi & McMurran, 2006; Harris, 2006; Crane & Eckhart, 2013). This was found across different interventions. It is understandable in that the most problematic populations a) have a lower baseline on the outcome measures, and b) may benefit more from support.

In summary, each category of motivational strategies describes some effectiveness but no one strategy is conclusively more effective than the others. In part this is due to difficulties in study methodologies, including weaknesses in outcome measures. However, whilst these should be addressed in future studies, overall, the retrieved strategies did demonstrate at least short-term improvements on at least one outcome per study. This review also celebrates development of the field and the wider range of interventions. In extending the clinician's toolkit, there is more scope for directly addressing different reasons for non-adherence. Similarly, the strategies do not necessarily need to be thought of in isolation of each other but rather could complement each other. There is clearly plenty of room for this field to evolve, which this review suggests would be a worthwhile enterprise.



## **CHAPTER THREE**

### **A Case Study of Dialectical Behaviour Informed Therapy for a Woman with Borderline Personality Disorder and Substance Use**

## **ABSTRACT**

There is a high prevalence of people diagnosed with Borderline Personality Disorder (BPD) within forensic settings, particularly in women's services. BPD requires the management of complex risky behaviours. However engagement with, and attendance at, services is unstable for this population. Dialectical Behavioural Therapy (DBT) was specifically developed with the BPD diagnostic criteria in mind and addresses engagement and retention. Using a single case methodology focusing on co-morbid BPD and substance use disorder (SUD) changes in psychological distress, symptoms, mindfulness skills, and functioning were evaluated during a 15 week DBT-informed group. These outcomes were measured using the Clinical Outcome Routine Evaluation-Outcome Measure (CORE-OM), Borderline Evaluation of Severity Over Time (BEST), Five Facet Mindfulness Questionnaire (FFMQ), Social Functioning Questionnaire (SFQ), and weekly diaries. All measures showed at least a mild improvement however the BEST yielded clinically significant change and weekly diaries recorded a 30% decrease in alcohol consumption. The methodology does not account for other factors impacting on recovery and any lasting effects were not evaluated through a follow-up.

## INTRODUCTION

This case study introduces Jenny, who had been diagnosed with BPD and SUD and referred to an outpatient service for patients with PD and antisocial behaviours. During her adult life Jenny had several short-term hospital admissions and intermittent engagement with community mental health teams as a result of her self-harm, parasuicidal behaviours, social anxiety and paranoia, and violent behaviours. Jenny had made little progress in psychological treatments at the point of referral. This introduction offers a necessary understanding of Jenny in terms of her diagnosis, aetiology and how psychological input may support improvements in her functioning.

### *Diagnosis and Prevalence of BPD and substance abuse in the forensic population*

Historically a PD diagnosis has been perceived as unreliable and ill-defined (Lewis, 1974). Professionals have expressed difficulties working therapeutically with this population in terms of patient's challenging presentations (Lewis & Appleby, 1988), and appear to remain anxious about the demands PD patients make on services, their own skills, and training or resources (NIMHE, 2003). However continued focus on service provisions, understanding of the diagnosis,

and experiences of service users supports progress in this field (Bolton et al., 2014; Craissati et al., 2015).

BPD manifests as a complex pattern of interpersonal, affective and behavioural instability, often marked by impulsivity and fractured self-image (American Psychological Association, 2000). These features of BPD are specifically marked by the presence of five or more symptoms including: fear of abandonment; unstable and intense interpersonal relationships; unstable sense of self; harmful impulsivity, including recurrent suicidal behaviour or threats of, or actual, self-harming behaviours; and, emotion dysregulation (APA, 2000; DSM-IV-TR, 2004). This complex range of symptoms is well-grounded in the literature (Lieb et al., 2004).

The ICD-10 refers to the diagnosis as Emotionally Unstable Personality Disorder (F60.3) and subcategorises it into impulsive (F60.30) or borderline (F60.31) types. The latter more closely reflects the definition in the DSM-IV-TR. These symptoms should be pervasive, persistent and problematic for an individual to meet the diagnostic criteria (Craissati et al., 2011).

The reported prevalence of BPD in the general population varies from 0% to 2.5%; the difference apparently accounted for by location with the lowest estimation in New York, USA (Lieb et al., 2004; Giesen-Boo et al., 2006; Coid et al., 2006). In a systematic review of mental illness in prison populations, 25% of female prisoners were diagnosed with BPD (Fazel & Danesh, 2002), whilst those in clinical

settings is estimated at 6.5-42.7% inpatients and 8-18% psychiatric outpatients (Korzekwa et al., 2008; Gunderson et al., 2013).

BPD also has high co-morbidity rates with drug use (38%) and alcohol use (48%) (Trull et al., 2000) which may represent psychosocial manifestation of the symptoms described above. For example, substances can be common coping strategies for affective, behavioural and cognitive instability. Dulit et al. (1990) also reported a high prevalence of SUD in the BPD population even when controlling for impulsivity. In a US prison substance use treatment programme 20.7% of female participants and 8.3% of male participants had diagnoses of BPD (Zlotnick et al., 2008). Whilst this also suggests a gender difference in BPD diagnosis among substance abusers; it also highlights that figures can be skewed by those actively seeking treatment rather than a representative population. Furthermore, co-morbidity exists between affective disorders and PD: 41-83% experience episodes of major depression (Trull et al., 2000). This highlights the blurring of emotion dysregulation as a criterion of PD and separate affective disorder diagnoses.

### *Biosocial Theory of Borderline Personality Disorder*

Existing literature has identified vulnerability factors for BPD which can broadly be categorised into family history of BPD in first degree relatives (Trull et al., 2000); childhood trauma, such as physical and sexual abuse; and, neuropsychological factors. These consequently

manifest as psychosocial deficits such as mistrust of others; novelty seeking behaviour; impulsive behaviours, such as self-harm; substance abuse; and, aggressive outbursts.

However, there is an inherent difficulty in mapping biological vulnerabilities of BPD. Heritability factors can also be explained by an upbringing in unstable, vulnerable families. Child sex abuse is reported in 40-71% of BPD inpatients, which highlights potential attachment-related problems in terms of absent, neglectful or avoidant primary care-givers (Lieb et al., 2004). Moreover, childhood trauma is a vulnerability factor for substance use (Links et al., 1995), again blurring the aetiology of SUD and BPD. Yet this posits the correlation of the two disorders as a result of early experiences.

Another biological consideration is that excessive alcohol use reduces serotonin levels over time, thereby impacting on affect (Trull et al., 2000). Serotonin imbalances are therefore associated with diagnoses where impulsivity is a key factor (Brady et al., 1998; Dawe, Gullo & Loxton, 2004; De Wit, 2009), alongside self-destructive behaviours (Krakowski, 2003). Interestingly, increased impulsivity is more associated with co-morbid BPD and SUD rather than either diagnosis alone. Yet specific impulsive behaviours, such as aggression, are characteristic of BPD but not necessarily SUD (Trull et al., 2000).

It is clear that the aetiology, and pathology, of BPD is complicated. This is further highlighted by the evolution of Linehan's

Biosocial Theory (1993) into the Biosocial Developmental Model (Crowell et al., 2009) in the light of new research in biological factors in psychological processes.

Linehan's original theory developed to guide treatment strategies specifically for individuals with BPD. It focused on the emergence of emotion dysregulation as a result of the reciprocity between a compromised biological system and risky environmental factors. That is, heightened sensitivity or vulnerability to emotions in the context of punitive parenting, exposure to aggression, and ultimately invalidating environments, can lead to problems in emotion regulation (Linehan, 1993; Shearin & Linehan, 1994; Crowell et al., 2009). The extent or frequency of this interaction is relevant to whether emotion dysregulation becomes more trait-like (Crowell et al., 2009).

The focus of BPD literature on familial environmental factors and child trauma, including maternal negative emotionality (Belsky et al., 2012), supports the importance of parental psychopathology during assessment. It is worth noting that the importance of care givers in this theory reflects the focus on early interactions and learning history in the development of affective, behavioural, cognitive and interpersonal processing, as outlined in Attachment theory (Bowlby, 1969). There is empirical evidence for the association between BPD and insecure-anxious attachments (Agrawal et al., 2004).

Crowell et al. (2009) have placed the biosocial theory within a developmental psychopathology framework to expand on biological aspects and their behavioural and social manifestations. Impulsivity is at the centre of this as it is posited as the earliest phenotypic factor of BPD. This emphasises the role of the biological characteristics of the child and interaction with the environment. There are biological similarities between BPD and other impulse control disorders, such as Attention-Deficit-Hyperactivity Disorder. These are specifically the presence of neurological dysfunction of neurotransmitter systems, including serotonin, and brain regions (Brewer & Potenza, 2008). The delineation between impulse control disorders is that emotion dysregulation is predominant in BPD. Serotonin imbalances between BPD and SUDs have already been discussed.

The association between self-harm in adolescents and a subsequent diagnosis of BPD (Crowell et al., 2012) could be evidence for the presence of poor impulse control in the development of borderline pathology. Conversely BPD features rather than impulsivity are better predictors of self-harm (Glenn & Klonsky, 2010; 2011). Longitudinal studies, of which there are few, would however enable a better understanding of this association.

In summary, the Biosocial Theory has developed to understand inherent emotional reactivity as biologically based in an invalidating environment which develops and maintains problems associated with emotion dysregulation and the trajectory towards a diagnosis of BPD.



### *Treatment Options*

In recent years effective treatment options for BPD have developed and 95% of individuals with BPD in the USA receive individual treatment, 56% receive group therapy, and 42% receive family and couples psychotherapy (Lieb et al., 2004). However these figures are clearly driven by those actively seeking treatment.

The slow progress in PD treatments, compared to that of Axis I disorders, is perhaps understandable considering the historic stigma described in Chapter 1. Indeed, no psychosocial treatment has demonstrated efficacy for all aspects of BPD - affective, identity and interpersonal difficulties - possibly because many therapies have been adapted for BPD rather than designed with it in mind. This said, most approaches or models encompass several aspects, for example Cognitive Analytical Therapy aims to address interpersonal difficulties but also focuses on identifying states of mind (Ryle & Kerr, 2003). However, DBT was developed specifically for BPD.

The National Institute for Health and Care Excellence Guidelines for BPD (NICE, 2009) also highlight long-term Mentalisation-Based Therapy, Cognitive Behavioural Therapy, Schema-Focused Therapy and Transference-Focused Therapy as potential treatments. The directive is clear that some therapies have a better evidence-base than others, with DBT at the forefront, but that more research is required to understand the efficacy of other treatments with BPD.

A meta-analysis of psychological therapies for BPD (Stoffers et al., 2012) highlights that of 28 studies only DBT studies included data from both group and individual sessions and so could be fully evaluated. Whilst DBT demonstrated improvements in emotion and behaviour regulation, it could be argued that due to the quality of other studies DBT becomes the most empirically supported therapy for BPD. Indeed, Kliem et al.'s (2010) review noted that, whilst DBT was effective, the effect size was lesser when compared with other therapies.

This may indicate that all treatments have some efficacy or that variables common across treatments account for the effect size. Conversely there are issues in comparing therapies with different treatment aims and differences are perhaps expected, yet there remains a dearth in evidence for other treatments. To be in a better position to understand whether the treatment is useful for the population and beneficial in clinical settings a focus on controlled research is necessary, with robust comparators, reliable and valid outcome measures and data analyses and conducted by two or more independent authors (Chambless & Hollon, 1998). Therefore DBT is the most well researched and supported therapy for BPD (Stoffers et al., 2012) albeit lacking somewhat in long-term effects on Borderline symptoms (Kliem et al., 2010).

DBT uses cognitive-behavioural and mindfulness concepts incorporated into mindfulness, distress tolerance, emotion regulation

and interpersonal effectiveness modules (Linehan et al., 1993) to validate the individual's feelings and experiences and then effect change by targeting the behavioural, affective, identity and interpersonal elements of the diagnosis. It has a good evidence-base for reducing harmful behaviours, such as self-mutilation and suicide attempts, by up to half; significantly improving self-damaging behaviour, such as substance use; and, reducing attendance at crisis services over that of a comparator group (Linehan et al., 1999; Verheul et al., 2003; Bohus et al., 2004; Linehan et al., 2006).

An important outcome of the treatment is the significant improvement in treatment retention with some reporting over 50% more service users remaining in DBT than the comparison group (Linehan et al., 1991; Verheul et al., 2003; Linehan et al., 2006). This is particularly important with the high dropout rates in the BPD population (Chiesa, 2000; Barnicott et al., 2011). 'Commitment strategies' may account for good retention and are outlined at the start of adherent DBT treatment. They include cost-benefit analysis, 'devil's advocate' motivation techniques, identifying goals and the obstacles to these and addressing target behaviours in a patient-therapist agreement. These strategies are embedded throughout therapy using behavioural analysis and reinforcement in individual sessions (Linehan, 1993; Lynch et al., 2006).

Comprehensive DBT uses both group and individual sessions to skills-train and consolidate skills respectively (Linehan et al., 1991).

Comprehensive DBT would be difficult to sustain in the current setting due to the therapeutic orientation of the service, the absence of available individual therapists and the patient engagement with other services. However Stoffers et al. (2012), acknowledged that studies have also addressed non-comprehensive, skills-based DBT groups and these have been reported as more effective than standard group therapy in improving mood and emotion, general psychiatric symptoms and retention (Soler et al., 2009).

Therefore the traditional mindfulness, distress tolerance, emotion regulation and interpersonal effectiveness modules, as outlined below, were delivered during skills-based only group over 15 sessions. This group was developed by the author and employs the psycho-educational and behavioural approach to teach skills through modelling, behavioural rehearsal and didactic teaching.

## **CASE DESCRIPTION**

This case study describes a therapeutic intervention with a woman diagnosed with BPD and SUD. She had ongoing difficulties with emotion regulation, specifically anger and anxiety, and distortions of self-identity. An assessment had previously been conducted by a clinical psychologist eight months prior to my contact with the patient. The assessment had recommended attendance at an initial psycho-education group, "Understanding Personality Disorder", pending assessment for appropriateness for further treatment. The

patient was allocated to my care as a facilitator of the psycho-education group. Names have been altered to ensure patient confidentiality.

### *Background and Referral*

Jenny was a 28 year old homosexual British woman with Axis I diagnoses of Alcohol Dependency Disorder (DSM: 303.90) and Axis II diagnosis of BPD (DSM: 301.83), based on the DSM-IV-TR (APA, 2000), due to lack of availability of the DSM-V. Previous psychiatric reports indicated symptoms of Posttraumatic Stress Disorder (DSM: 309.81), however it was unclear whether a formal diagnosis was made. Jenny was referred to the forensic outpatient service for PD, by her community mental health team in January 2013. The team felt unable to manage Jenny's risk alone however the forensic service's initial assessment concluded that Jenny's risk level did not warrant immediate and intensive support. She was therefore recommended for a brief psycho-education group.

Jenny's re-assessment involved triangulating information from the initial assessment, information from the patient's care coordinator and substance misuse team, observation and history taking through interview, case note review and psychometric examination.

### *Presenting Difficulties*

We met during the pre-group assessment in October 2013. Jenny was a White British woman of average weight and height. She was casually dressed in loose jeans and tracksuit top. She wore large oversized sunglasses and one earphone in her ear for the majority of the initial assessment. She was oriented in time and place and showed no obvious signs of psychosis or other major mental illness however was continuously restless, twitching her legs and manipulating her earphone. Jenny made little eye contact throughout the assessment and spoke abruptly.

Jenny extensively discussed her concerns about her anger and aggressive behaviours; however, she also exhibited paranoid ideation, self-harm, substance misuse and high levels of anxiety. These appeared to underpin her violent behaviour. Her mental health had deteriorated since her initial assessment, characterised by self-harm, increased substance misuse, and self-isolation. This resulted in a brief hospital admission in September 2013.

### *Paranoid Ideation*

Jenny identified that her paranoia was based on misappraisal of other people's beliefs and intents, and that she responded violently when she felt vulnerable, threatened or helpless. Jenny highlighted this was problematic within the community but also experienced similar feelings at home based on distressing memories of domestic violence involving her ex-partner. Her paranoia at home manifested as

auditory hallucinations, which had intermittently been present since she was 8 years old. These hallucinations were described as distressing as the voices were often commanding in nature and told her to harm herself and others. In response to this she would often self-isolate as a safety behavior. This impacted on attendance and engagement with services; also compounded by her thoughts about others.

### *Substance Use*

Jenny had used polysubstances including cannabis, cocaine and alcohol for 10 years, and although she was no longer dependent on illicit drugs her alcohol use was excessive. In her initial assessment, Jenny significantly minimised alcohol consumption, which she later reported could be up to 20 drinks a day. Jenny described being vulnerable to peer pressure, particularly from her brother; however, also stated that excessive use of alcohol and prescription drugs were a means of detaching from distressing experiences and cognitive distortions. Therefore this enabled her to tolerate a social environment. Similarly Jenny consumed when she was self-isolating to manage fear of the auditory hallucinations. Jenny identified her substance use as evidence of her defectiveness and an obstacle to engagement with services.

### *Violence*

Jenny had a significant history of violence towards others and herself, including self-harm, domestic abuse and spontaneous violence against members of the public. Jenny acknowledged that her violent behaviours increased when she was under the influence of substances. However her behaviour was a direct response to beliefs that she was being judged, humiliated or threatened. Therefore she stated she was often justified in her actions because they protected her when she felt victimised. Jenny's violent behaviour resulted in feelings of guilt which she managed through substance use and self-harm. Jenny also reported self-isolating or subjugating her own thoughts and feelings to manage these behaviours and avoid conflicting situations.

#### *History of Presenting Difficulties*

Jenny stated that she felt "different" from a very young age: she was always angry and expressively violent and felt she could not express love. She fluctuated between seeking support and rejecting her mother. Jenny re-enacted this ambivalent attachment style in other supportive relationships, including her sister-in-law and a friend. Jenny also had ambivalent feelings towards her diagnosis as she felt it offered an explanation as well as emphasised her difference. Jenny was briefly involved with mental health services as a child when her family referred her to a psychiatrist aged 8, however her engagement was poor.



### *Mental Health History*

As an adult, Jenny's contact with community and acute mental health services was chaotic, characterised by irregular attendance to services and complete disengagement. Jenny had over 5 hospital admissions for para-suicidal behaviours and auditory hallucinations, and had previously been held by several community teams for "social anxiety with paranoid features, trauma and substance misuse and medication management". Any progress with community teams was impaired by poor engagement.

### *Forensic History*

Jenny had a history of expressive anger which dated back to age 17, when she smashed a window into a room where her sister's baby lay, and received a police caution for property damage. In 2011 Jenny received two probation orders for common assault, involving conflict with the police and a member of the public, and criminal damage. She spent four weeks in prison for common assault, during which her physical and mental health deteriorated and was subsequently released early on tag for 12 months. The triggers to these offences were perceived threats towards her ex-partner. In December 2013, Jenny was involved in an assault during which she threatened a member of public with a broken beer bottle following perceived threat to her brother, however this was not reported to the police. Violence

towards strangers was mainly triggered by thoughts of persecution and threats.

Jenny had discussed other violent altercations involving family and friends, including punching her sister-in-law and assaulting her friend, both of which resulted in hospitalisation however were not reported to the police. Jenny recognised that her violence was often within the context of alcohol use and paranoid thinking, specifically that her loved ones were humiliating or rejecting her.

#### *Current Medication*

Jenny was prescribed Quetiapine, Haliperidol, Sodium Valporate and Diazepam to manage her mood and auditory hallucinations.

#### *Personal History*

Jenny stated that she was well provided for as a child and felt that her own behaviours were the main disruption in the family. However, she later highlighted early experiences of parental violence. Her earliest memories were of her mother throwing a kettle at her father and her father pouring petrol to set the house alight. Shortly after the latter incident, Jenny's father left the family home. Jenny could not confirm a history of mental illness within the family.

Jenny stated that she suffered from a life-threatening illness as a baby - either meningitis or whooping cough - and was not expected to live. Jenny described her mother's attention during her childhood

as “smothering” and recalled finding this difficult as she felt unable to reciprocate this. Jenny frequently rejected her mother using anger and aggression to push her away, however also reported that she would regularly seek her mother’s support. Jenny had no contact with her father; however, her step-father was present during her childhood and adolescence. Her step-father was of middle-eastern decent and she has step-siblings. Jenny described an ambivalent relationship with her siblings, similar to that with her Mother: that they were close and she was protective of them but would equally engage in angry and violent fights with them.

Jenny had periods of truanting at school, led by peers and her anxieties about being in a busy classroom. At age 14 Jenny was sexually abused by three men whilst truanting and reported “flashbacks” of this as well as self-blame for truanting and getting into the stranger’s car. Jenny expressed a deeply embedded mistrust of men. Jenny stated that she had experienced “panic attacks” since she was young, which she managed by withdrawing to her bedroom, but could not identify the root cause of these panic attacks.

Jenny was a homosexual woman and had not described any previous heterosexual relationships but had recently ended a seven year homosexual relationship. Jenny’s experiences of abuse had continued into her adult life; Jenny was both victim and perpetrator of significant domestic violence within her most recent relationship, which further embedded her sense of victimisation. Jenny’s

reluctance to talk about the details of the abuse restricted any understanding of her feelings and interpretation of events. However this may have indicated the level of distress, guilt and trauma she continued to experience.

### *Assessments*

As a standard assessment used in the service and to offer an objective understanding of Jenny's personality difficulties, the MCMI-III was completed. Her scores indicated she met the classification for Schizotypal PD as well as Borderline. These were particularly characterised by 'temperamental lability' and 'interpersonally paradoxical' facets and internal working model difficulties, which corroborates and contextualises her self-report of an ambivalent relationship with her family and her paranoid ideation. Jenny yielded high scores (above the cut-off of 85) for anxiety, PTSD and major depression. It is noted however, that depression is often over-estimated with people with BPD due to the emotional dysregulation.

A violence risk assessment, the HCR-20 v.2 (Webster et al., 1997), was also completed to support the wider team in understanding and managing Jenny's risk. Jenny's risk was rated at medium with particular focus on her current substance misuse, difficult interpersonal relationships and impulsivity. However, her support network, insight into need for treatment, and feasible future goals were particular strengths.

## **CASE FORMULATION**

Jenny and I collaboratively discussed the formulation of her current difficulties based on Linehan's Biosocial Model (1993), pertinent to those with BPD. This was complemented by Davidson's (2000) cognitive framework for PD (Appendix E). Davidson's framework allowed for identification of emerging protective strategies by addressing her underdeveloped behaviours. Jenny's formulation is summarised as follows (Appendix F).

Jenny's infection as a child may have resulted in damage to the nerves and the brain which would be relevant to neuropsychological factors such as impulsivity and problem solving. Jenny's life-threatening illness also chronologically matches her mother's "smothering" behaviour, which is likely to be a result of over-protective instincts to compensate for Jenny's poor health as well as any instability in the relationship between mother and father.

Her frightening and unsafe childhood as a result of her parents' affective and behavioural dysregulation, and her father's absence, may have impacted on her attachments with her parents in terms of feeling insecure, helpless and abandoned. Furthermore, although the psychopathology of her parents cannot be confirmed, their affective and behavioural dysregulation may evidence biological vulnerability to the disorder. Later experiences of sexual abuse and domestic

violence are likely to have further embedded feelings of insecurity and helplessness.

Jenny's incidents of truanting during her childhood demonstrated her early engagement in low-level risky behaviours and peer influence. They also represented inappropriate attempts to gain independence from her mother and poor problem solving of the anxieties she experienced as a child.

### *Behavioural Dysregulation*

Jenny's maladaptive coping strategies were maintained by their ability to protect her through physical and mental detachment. As an adult Jenny withdrew from others and rejected all communication which re-enacted adolescent experiences of avoiding situations through truanting and self-isolating. Furthermore, Jenny used aggression to protect herself both as a learnt strategy from her parents and to maintain distance from others to manage the fear of abandonment and rejection or feelings of vulnerability associated with humiliation and paranoid thoughts.

Jenny's use of substances as a coping strategy was negatively reinforced by enabling her to detach or dissociate from painful memories and emotions, and was positively reinforced by enabling her to leave the house and socialise. Long term however, it also contributed to her feelings of guilt and defectiveness as her

interpersonal violent behaviours and self-harm was often within the context of substance use.

Jenny also frequently adopted the role of the 'victim' in Karpman's Drama Triangle (1968), which identifies transactional roles of 'victim', 'persecutor' and 'rescuer'. Jenny's feelings of helplessness and dependency drove her to seek support and care from a "rescuer" often in a position of care: carer, therapist, mother or mother-figure. Her ambivalent relationship with mental health services reflected her role in the parent-child relationship, as evidenced by both care-seeking and rejecting engagement.

### *Emotional Dysregulation*

Jenny's "smothered" childhood limited the development of autonomy in emotion management which would explain her current difficulties in managing emotionally charged situations. Furthermore, Jenny's fear of other people's judgements and her violent behaviours tended to result in the subjugation of her own feelings in favour of agreeing with others to avoid conflict. This may be a learnt behaviour from an invalidating environment during childhood.

This poor management of her feelings had resulted in difficulty identifying and communicating her emotions, leading to emotional outbursts and maladaptive coping strategies, such as substance use and self-harm.

### *Interpersonal Dysregulation*

Jenny's self-punishment for being unable to reciprocate her mother's expression of love, be close to others or accept their love was used as evidence for her sense of defectiveness. Furthermore, Jenny struggled with closeness with others and the fear that they would smother her and so fluctuated between seeking intimacy and rejecting it when it felt overwhelming.

Jenny's sense of "being different" from her family and others in terms of her diagnosis and different ethnic origin from her step-siblings enhanced this sense of defectiveness, and may have further embedded a sense of abandonment and rejection by her biological father. Jenny's own identity issues had instilled a belief that she would be negatively judged by others, which disrupted progress in her relationships.

### *Cognitive Dysregulation*

Jenny's experiences of abuse had heightened her sense of the world as hostile and thoughts of being deliberately harmed or humiliated emphasised a need to remain hyper-vigilant to threatening situations. Jenny's coping strategies maintained these beliefs as her self-isolation and substance abuse failed to disprove them, and appeared protective. However, these resulted in avoidance, panic attacks and suspiciousness, and aggression.



Jenny had expressed negative attitudes towards men, and also towards her identity as a woman. This was evidenced in her shame of menstruating and her physical presentation: wearing men's clothing and aftershave. Whilst this may have been part of her identity as homosexual, it could also be explained by her sexual abuse. Distance from concepts of femininity, and her negative attitudes towards men, could be a means of protecting her against further assaults and managing any sense of vulnerability. Jenny used aggression to conceal signs of vulnerability from others, learnt from being in a male dominated environment. This could also be conceptualised as an interpretation of vulnerabilities as a female trait.

Jenny's protective childhood, and possible cognitive impairments associated with early viral infection, have impacted on cognitive processing capabilities, limiting her ability to appropriately evaluate and cope with situations, realistically appraise risk and problem solve.

Jenny had expressed useful coping strategies and protective factors including completion of outlined goals with Occupational Therapy; good insight into her behaviours, for example that alcohol, sunglasses and earphones managed her paranoid thoughts; adaptive coping strategies such as listening to music and using the gym; and had a good support network.

### *Treatment Goals*

Jenny identified that she struggled with a range of emotional difficulties including anger, mistrust and suspiciousness, anxiety and shame. She identified that she wanted to:

- 1) be able to manage overwhelming emotions through identifying coping strategies and consequently better cope with difficult or triggering situations, such as perceived abuse or threat;
- 2) abstain from alcohol in order to address the paranoid cognitions, and the distressing past experiences her alcohol use masked, and to provide a basis to move towards volunteering and study; and
- 3) be able to develop relationships with other people, including reducing her aggressive protective layer, through improved communication, emotion management and developing her own self esteem by targeting the sense of “bad” self.

The goals that Jenny outlined had clear links to improving the cognitive, behavioural and emotional symptoms of BPD.

### *Outcome Measures*

In order to measure progress in these treatment goals, and general therapy aims, the following measures were taken at the pre- and

post-treatment and at the start of every new module, therefore every 3-4 weeks.

*Borderline Severity over Time (BEST; Pfohl et al., 2009)*

The BEST is a self-report questionnaire comprised of 15 items, used to measure BPD symptoms. It is suitable for repeated use and demonstrated sensitivity to clinically significant change over time, specifically a 20 week treatment period ( $p < .001$ ). The BEST has demonstrated good internal consistency with both subjects with BPD (0.86) and comparison subjects (0.90), and demonstrated reasonable test-retest reliability ( $r = 0.62$ ,  $N = 130$ ,  $p < 0.01$ ). Convergent validity was moderate ( $r = 0.51-0.76$ ,  $p < .001$ ) and discriminant validity was good to strong with the Symptom Checklist-90-R ( $r = 0.59-0.72$ ,  $p < .001$ ), Social Adjustment Scale (0.41-0.59,  $p < .001$ ), Clinical Global Impression ( $r = 0.33-0.59$ ,  $p < .001$ ), and Beck Depression Inventory ( $r = 0.53-0.80$ ,  $p < .001$ ). Furthermore, the authors report face validity by assessing thoughts and behaviours associated with BPD; and indirect content validity because the items are linked with the DSM-IV (Pfohl et al., 2009).

As Jenny's goals address the symptomology of BPD the BEST was selected to measure change in negative thoughts, feelings and behaviours based on the DSM-IV criteria for BPD and positive behaviours learnt throughout therapy.

*Five Facet Mindfulness Questionnaire (FFMQ; Braer et al., 2006)*

The 39 item self-report questionnaire addresses five factors pertaining to mindfulness: observing; describing; acting with awareness; non-judgemental; and non-reactional. The measure was constructed from a factor analysis of 5 existing measures of mindfulness (Frieberg Mindfulness Inventory, Buchheld, Grossman & Walach, 2001; Mindful Attention Awareness Scale, Brown & Ryan, 2003; Kentucky Inventory of Mindfulness Skills, Bauer et al., 2004; Cognitive and Affective Mindfulness Scale, Feldman et al., 2007; Mindfulness Questionnaire, Chadwick et al., 2005). The 5 facets derived yielded adequate to good internal consistency ( $\alpha=0.72-0.95$ ) in meditating and non-meditating populations. All factors, except 'observing' were significant predictors of psychological well-being, with non-judgement being the strongest predictor ( $\beta=.18-.26$ ;  $p=.000-.011$ ), thereby demonstrating incremental validity.

This tool directly relates to the therapy aims however was also a means of measuring the mechanisms of change in Jenny's emotion management outlined in goals 1 and 3.

*Weekly Diaries*

Jenny completed the DBT diary card used in the DBT research trials (Appendix H; Linehan et al., 2006) which identified

different problematic behaviours, emotions and urges, as identified in her formulation. In terms of treatment goal 2, this was also a means of recording Jenny's substance use on a regular basis throughout the therapy.

The following outcome measures were used by the service as standard measures for groups and were facilitated pre- and post-group.

*Clinical Outcomes in Routine Evaluation-Outcome Measures (CORE-OM; Evans et al., 2000)*

This is a 34 item client self-report questionnaire which measures the level of psychological distress experienced in the last week. The tool measures four factors: well-being, problems/symptoms, life functioning and risk/harm. It amalgamates these to provide a score of global distress on a five point Likert scale. Evans et al., (2000) finds the measure to yield excellent internal consistency ( $\alpha=0.75-0.95$ ) and excellent test-retest analysis in all scales ( $r=0.87-0.91$ ), except risk ( $r=0.64$ ), over a one week period. The CORE-OM also evidenced convergent validity ( $r=0.65-0.88$ ) with 6 measures of symptoms and health (Evans, 2000).

The CORE-OM relates to Jenny's first and third treatment goals by measuring the distress experienced and improvements in functioning.

*Social Functioning Questionnaire (Tyrer et al., 2005)*

This 8-item self-report questionnaire assesses social functioning across work, relationships, finances, social contact and spare time. It was developed from the Social Functioning Schedule (Remington & Tyrer, 1979), which has adequate to good inter-rater reliability ( $ICC=0.45-0.81$ ) and construct validity ( $t=1.80-5.08$ ,  $p<.0.01-0.05$ ), with the exception of the social contacts sections (Remington & Tyrer, 1979). The psychometric properties of the Social Functioning Questionnaire have not been assessed, yet this was a standard measure used in the outpatient service. Items on this tool therefore measures change in Jenny's relationships, her third treatment goal.

*Planned Analyses*

The analysis of the quantitative outcome data will be presented visually and analysed for clinically significant change and reliability of change (Kazdin, 1999; Kendall et al., 1999). In the absence of a functional norm group for the BEST or the FFMQ, it has been taken that a movement of 2 Standard Deviations (SD) or more towards a healthier profile indicates clinical change (Jacobson & Truax, 1991;

Jacobson et al., 1999). Similarly, their calculation for reliable change was used - the difference between the pre- and post-test scores divided by the standard error of the difference.

The CORE-OM calculates clinical significance as moving to below the clinical cut-off of 10, whilst reliable change is calculated by using the clinical scores (mean x 10) to determine a difference of 5 or more pre- and post-measure (CORE-IMS, 2010).

## **INTERVENTION**

I met with Jenny for 15 group sessions of DBT-informed skills training for emotion management and self-destructive behaviours. This was preceded by 5 fortnightly individual assessment sessions, during which consent was obtained, between December and March. There was a break for the Christmas holidays. The DBT intervention ran weekly from March until June with the exception of one week breaks in Easter and half-term.

The group was intended to concurrently address her treatment goals and social isolation, paranoid thinking, and the stigma of her diagnosis. Furthermore, the existing high input of individual work from other professionals necessitated consideration on the restraint on resources. A major consideration was Jenny's history of poor engagement, which was also problematic in terms of staff resources. Therefore, the evidence-base for treatment retention in DBT was

important in this case and consequently the DBT commitment strategies were employed during the individual sessions to enhance engagement.

This involved identifying Jenny's goals, during which she highlighted that her substance use would be an obstacle, and therefore this was incorporated into the goals. This was also a useful opportunity to address how DBT could help Jenny meet her goals, which included identifying the pros and cons of therapy and 'playing devil's advocate' against her intention to engage to increase commitment. This led to the establishment of the patient-therapist agreement which defined the length and expectations of treatment from both patient and therapist. These commitment strategies have not been empirically evaluated, however the high treatment retention in DBT suggests some value in using them with Jenny.

It is postulated that engagement in DBT is further enhanced in completing behavioural analyses of problem behaviours, which was idiosyncratically incorporated into the formulation feedback. Jenny's 'high risk' situations were collaboratively analysed in terms of her pre-existing vulnerabilities, for example intoxication; and external triggers, such as thinking people were staring at her; and, the associated cognitions, feelings, physical sensations and behaviours. It was hoped that this would enhance engagement through enabling an understanding of how her current coping strategies maintained her



problems and socialising her to consideration of alternative strategies.

#### *DBT Intervention Sessions 1-4: Mindfulness*

Mindfulness addresses particular necessities in attention and awareness, such as purposefully attending to the present moment using observation, describing and adopting a non-judgemental stance. It derives from Buddhist meditation (Kabat-Zinn, 2003). In experientially developing these skills the aim is to reduce the distress caused by judgements and increase the acceptance and appraisals of situations; thereby improving emotion management and responses towards others.

These skills were achieved through socialisation to the three mind model - rational, emotional and wise mind - attributing behaviour to particular states of mind, behavioural experiments to monitor judgements and their outcomes, and experiential tasks to enhance focusing on the present moment. Through this, Jenny identified how her judgements were enmeshed in her behaviours. Jenny attended two of the three compulsory sessions.

#### *Intervention Session 5-7: Distress Tolerance*

Distress tolerance offers an understanding that pain is an unavoidable part of life and focuses on reducing the suffering felt in the crisis moment through the use of distraction, self-soothing and motivation

techniques. This module directly targeted Jenny's first goal but also addressed her alcohol use as one means of coping with distress.

These skills are developed through techniques to reframe maladaptive coping strategies: relaxation training, behavioural experiments to practice ACCEPTS (activities to distract; contributing to the community; comparing to others and self; emotion recognition; push it away; thought management; and focusing on sensations) and IMPROVE (imagery; meaning in life; focusing on power or prayer; relaxation; one thing at a time; vacation – imagery; and encouragement). These skills were able to inform crisis plans (Appendix I).

This 'validation' module is particularly important for patients with BPD, who have often experienced inconsistent emotional warmth and security and have been encouraged to suppress their emotions. Using motivational interviewing, Jenny was able to identify what would make her life meaningful and that her substance use was an obstacle to this, and indeed perpetuated her low mood. Following this, she was able to address tangible and straightforward alternatives to manage stress 'in the moment'. Jenny particularly found strategies such as 'opposite emotion', distraction and relaxation techniques and coping thoughts useful.

During homework Jenny identified her cognitive distortion of "discounting the positives". Jenny addressed this by using behavioural strategies to record positive activities and rate her

emotions. She was able to positively reinforce her own behaviour when she recognised having achieved something. Jenny felt that one of her biggest achievements was that she was able to tell her mother that she loved her for the first time.

### *Intervention Session 8-12: Emotion Regulation*

Emotion regulation builds on the coping skills learnt in that it addresses change-focused skills to use in times when we can change emotions and situations. In normalising and understanding emotions, we are then able to reduce emotional vulnerability and suffering. These skills were developed through didactic teaching about emotions and their physical sensations, activity monitoring for management of physical vulnerabilities, thought management strategies and behavioural rehearsal of acting the opposite to our emotionally driven behavioural urges.

During the distress tolerance module Jenny had begun to reflect on the nature of her own problematic emotions and started to acknowledge the plethora of emotions which caused distress and led to her antisocial behaviours. Jenny identified as an “angry person” but as the module progressed, realised that this was underpinned by fear, jealousy and paranoia. Jenny was supported to understand this using the five areas of assessment model (Williams & Garland, 2002), which offers a cognitive framework in which to consider situations, thoughts, emotions and physical feelings, behaviours and

consequences. She was able to apply this to an idiosyncratic example (Appendix G). In understanding the functional analysis of her aggressive behaviours Jenny was keen to understand how to manage a wider range of emotions which caused her distress and used homework tasks of emotion diaries to explore this further. Jenny demonstrated good use of cognitive restructuring of paranoid thoughts, thereby focusing on pro-social ways of achieving control and a stable identity.

Jenny acknowledged that it was more difficult for her to embed certain 'change techniques' such as radical acceptance and weighing up the evidence due to her impulsive problem solving style. These were therefore slowly consolidated across the module and deconstructed to identify how the mindfulness techniques, such as observing and describing, were used in these strategies.

Jenny disclosed that towards the end of this module she had been experiencing auditory hallucinations and increased paranoia which had impacted her engagement within the sessions. This decompensation was characterised by her purchase of a gun to try to manage her vulnerabilities, which needed to be addressed alongside her attendance at the group and risk assessment of this. Through joint support of her community team and me, she was able to refer to her crisis plan and explore the function of the behaviour and surrendered the weapon within a day, continuing to work closely with all services involved.

### *Intervention Session 13-15: Interpersonal Effectiveness*

Interpersonal effectiveness refers to the skills necessary to participate in relationships and ensure that each person's needs are met. Respect is maintained through compromise, negotiation and assertiveness. This therefore addressed Jenny's last treatment goal, to develop and manage relationships more effectively.

These skills were achieved through didactic presentations on what assertiveness, mindful attention and DEARMAN skills are (describe the situation; express feelings; assert requests; reinforce your perspective; stay mindful; appear confident; and negotiate). The principles and application of problem solving, modelling the use of assertiveness scripts and behavioural rehearsal of using techniques to assert were key throughout this module.

Jenny had identified her previous relationships lacked communication, problem solving and compromise. From homework tasks Jenny found "I" statements particularly useful as it helped to manage her naturally aggressive communication style and complemented her understanding of judgements and how to reduce these. Jenny was able to identify that the guilt she felt following most of her altercations could be managed by approaching things in a more assertive and "reasonable" way, which she felt more able to do when she did not feel as "defensive" or judgemental.

At the end of the group a therapy blueprint was used to consolidate the skills learnt (Appendix J).

## RESULTS

The following measures assessed the effectiveness of the intervention in terms of both personal and therapeutic treatment aims.

### 3.1. *Borderline Severity over Time (BEST; Pfohl et al., 2009)*

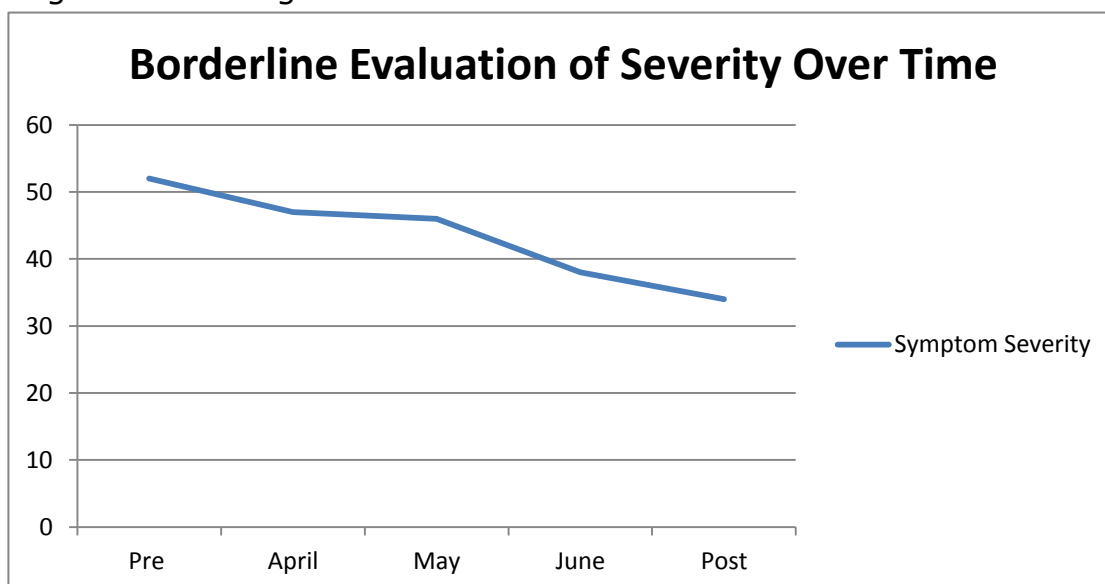
Table 3.1: Pre-, post- and norm group BEST Scores

<b>Pre-group Score</b>	<b>Post-group Score</b>	<b>BPD Norm Group Mean</b>	<b>BPD Norm Group SD</b>
52	34	38.7	11.2

\* Norm group taken from Pfohl et al., 2009.

Jenny's scores demonstrated a reasonably steady decline throughout therapy, resulting in a post-group score (34), better than the norm group (38.7). Jenny's difference in pre- and post-group score ( $SD=2.77$ ) shows clinically significant change.

Figure 3.1 Change in BEST Total Score Over Time



### 3.2. Five Facet Mindfulness Questionnaire (FFMQ; Braer et al., 2006)

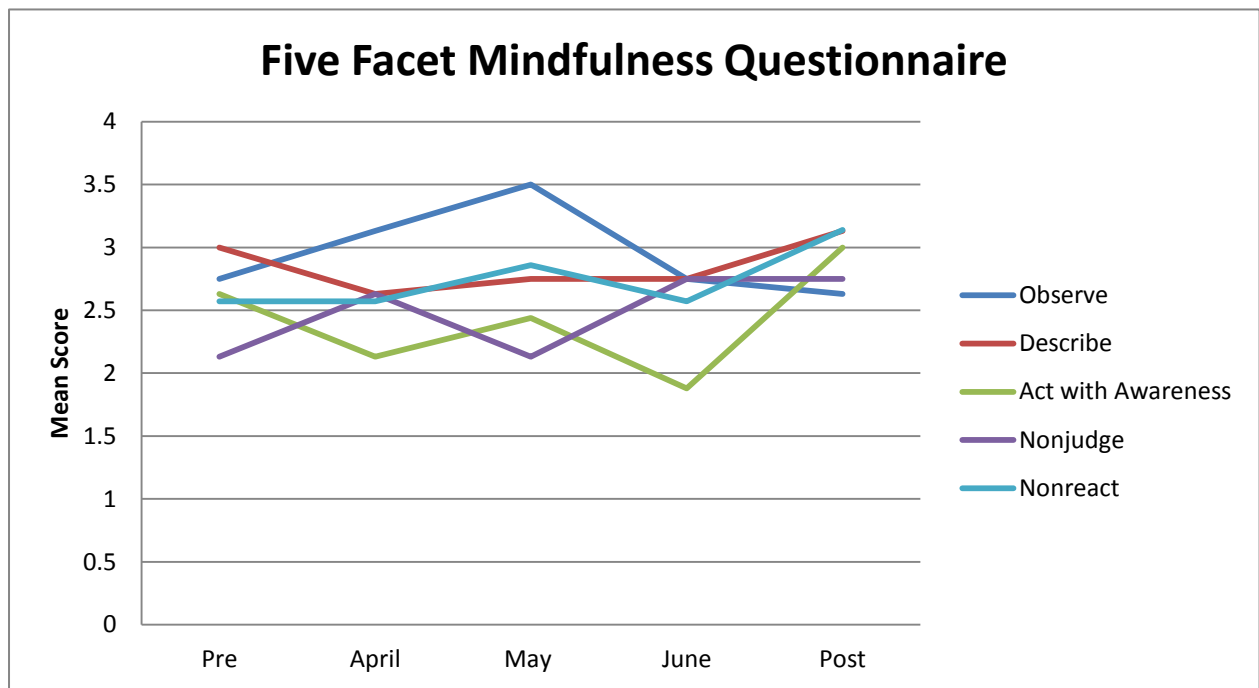
Table 3.2: FFMQ Scores and Norm Group Scores

	<b>Pre-group Score</b>	<b>Post-Group Score</b>	<b>Community Norm Group Score*</b>	<b>Community Norm Group SD*</b>
<b>Observe</b>	22	21	24.32	5.48
<b>Describe</b>	24	25	24.63	7.06
<b>Act Aware</b>	21	24	24.57	6.57
<b>Non- judgement</b>	17	22	23.85	7.33
<b>Non- reaction</b>	18	22	19.53	4.88

\* Norm groups taken from Baer et al., 2008.

Jenny's pre- and post- scores for observation, description, acting aware and non-reaction were all similar to the functional norm group mean score, however her non-reaction score post-group (22) had improved above the norm (19.53). Her post-group non-judgemental score (22) had also moved to within the normal profile range (23.85). No facet met the criteria for clinical significance or reliable change.

Figure 3.2. Change in FFMQ Mean Scores Over Time



### 3.3. Clinical Outcomes in Routine Evaluation-Outcome Measures

(CORE-OM; Evans et al., 2002)

Table 3.3: Pre- and post-group CORE-OM Scores

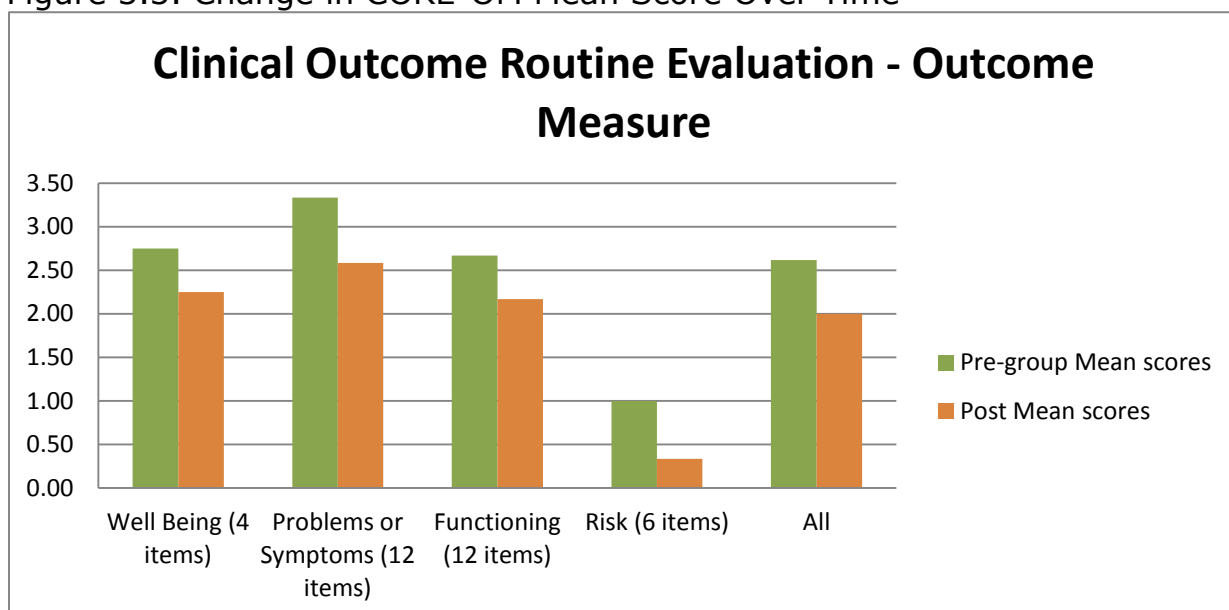
	Pre- group Raw Score	Pre- group Mean Score	Post- group Raw Score	Post- group Mean Score
<b>Well-being</b>	11	2.75	9	2.25
<b>Problems/symptoms</b>	40	3.33	31	2.58
<b>Functioning</b>	32	2.67	26	2.17
<b>Risk</b>	6	1.00	2	0.33
<b>ALL</b>	89	2.62	68	2.00



As the measure is used for all WMC groups, Jenny's post-group psycho-education scores and pre-group DBT group score can be discussed as a baseline. Jenny expressed a 'low-level' profile between the end of the psycho-education group to the start of the DBT group. The only difference in group scores was a small improvement in her risk score which may be due to the use of alternative coping strategies developed during the individual sessions.

Following the DBT group, post-therapy scores revealed an improvement on all dimensions, resulting in a shift from 'low-level' to just within 'healthy' for global distress and movement from 'moderate' to just within a 'mild' profile for symptoms. Only the change in risk (1.00 to 0.33) was clinically significant, however overall all dimensions showed reliable change albeit functioning and well-being were borderline.

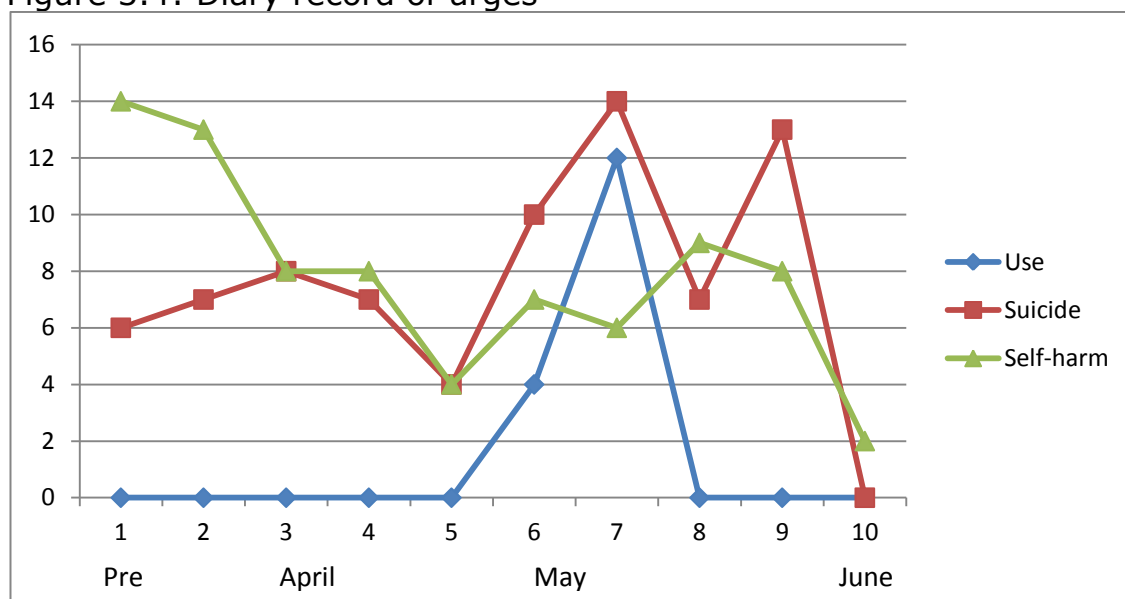
Figure 3.3. Change in CORE-OM Mean Score Over Time



### 3.4. Weekly Diaries

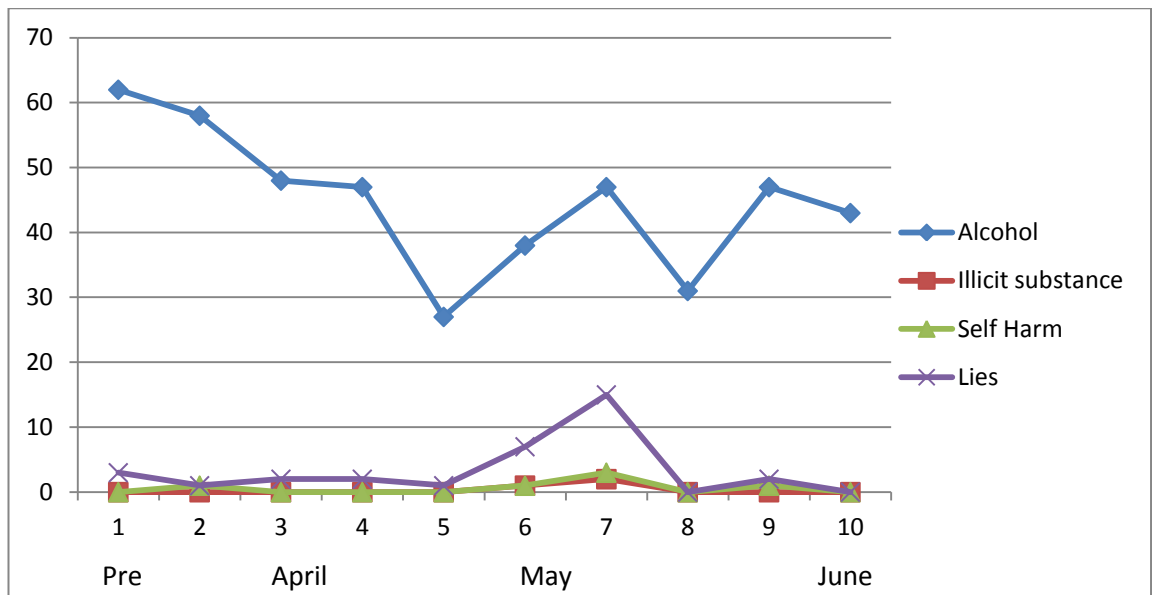
Jenny kept the DBT diary records until week 10 of the group, therefore did not complete the final 5 week's worth of diaries despite attending the sessions. Jenny stated that this was because she was frequently spending more time with her new partner and had forgotten to complete them.

Figure 3.4: Diary record of urges



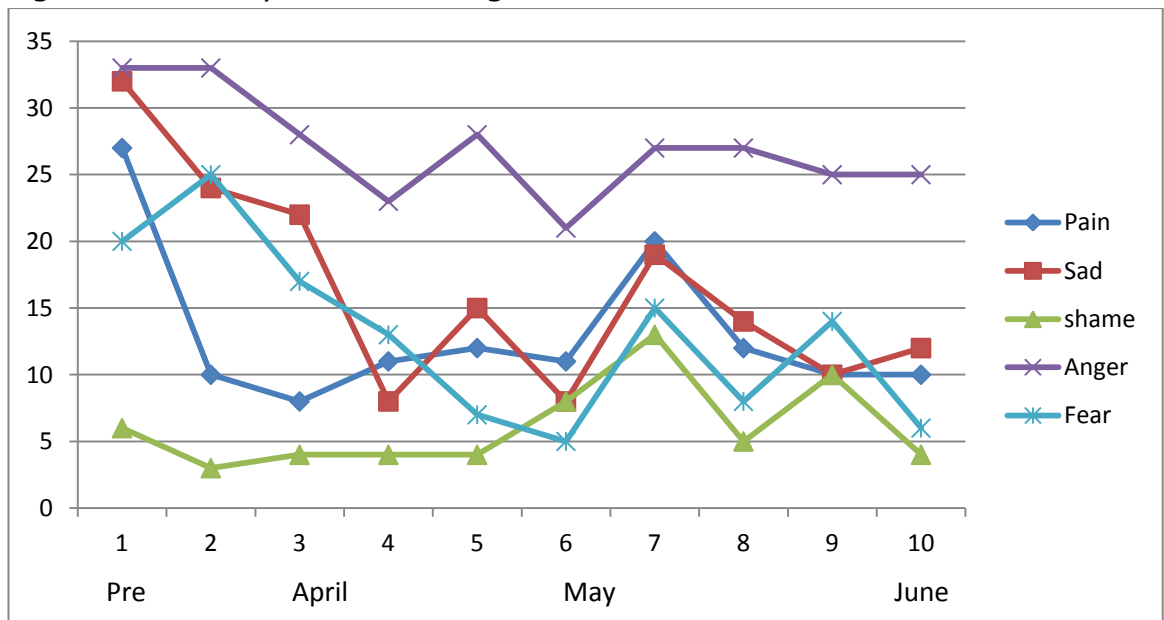
Jenny's urges ultimately showed decrease from pre- to post group, particularly on suicidal urges (pre: 6 to post: 0) and self-harm urges (pre: 14 to post: 2). There was an 85% decrease in urges to self harm, however this decrease is unpredictable and unsteady, particularly in terms of Jenny's distress between April and May.

Figure 3.5: Diary record of negative behaviours



Jenny reduced her alcohol use by 30% (from 62 drinks per week to 43) over the course of the group, however this was, again, an unsteady decrease which showed a particular peak in all negative behaviours between April and May.

Figure 3.6: Diary record of negative emotions



Jenny expressed a reduction in all negative emotions however showed the biggest decreases in pain from a rating of 27 to 10 (63%), sadness from a rating of 32 to 12 (63%) and fear from a rating of 20 to 6 (70%). Again, the decline in her negative emotions was not steady, though it did not increase to pre-group scores.

Despite the decrease in urges, behaviours and emotions, Jenny's diaries reflected that she frequently felt unconfident about using the skills, and indeed did not feel that she often used them. Furthermore, Jenny often identified that her mood would interfere with how connected she felt in the group.

#### *Social Functioning Questionnaire*

Jenny's score (see Appendix K) showed a decrease from 11 to 9 during the DBT group, which shows movement in the right direction. This may be a result of the social aspect of the group itself as well as the group focus on interpersonal functioning.

### **EVALUATION OF INTERVENTION**

Objectively the decrease in scores on all outcome measures from pre- to post-therapy showed that Jenny's distress and symptoms had improved over time. All measures reflect Jenny's decompensation in April and May during the emotion regulation module. Furthermore, her observation scores peak at this point which may reflect her

paranoia. Jenny's FFMQ scores corroborated her self-reported improvement in non-judgement and non-reaction. The reduction in her CORE-OM scores supported Jenny's subjective report of her reduction in negative emotions, particularly pain, fear and sadness, and her maladaptive behaviours, particularly self-harm and alcohol use.

As one of her treatment goals, it was important that Jenny subjectively identified a reduction in alcohol use, evidenced by her weekly diaries. Jenny's alcohol use had previously affected her past engagement with community teams to the point of discharge however she was able to attend 13 of the DBT group sessions even during times of personal crisis, which supports the efficacy for DBT as an intervention with good retention.

## **DISCUSSION AND REFLECTION**

Jenny was motivated to engage in therapy and expressed good insight into how her responses to her emotions were problematic and affected her relationships and daily functioning. In doing so, Jenny was also able to focus on multiple maladaptive coping strategies and harmful behaviours, such as alcohol use and violent behaviours and benefit from DBT's efficacy in reducing alcohol.

Jenny's substance use proved to be, in DBT terms, a 'therapy-interfering' behaviour as she missed two sessions due to sickness

from alcohol use and was often 5 minutes late for sessions reporting fatigue and withdrawal symptoms. Despite this, Jenny's motivation to engage was evidenced by her request for handouts for missed sessions, completion of the homework tasks and reflecting on the group content between sessions when she was, in DBT terms, in 'clear mind', that is not under the influence of substances. This certainly supported her progress in the group and compensated for the times she struggled to focus.

Jenny not only identified that her 'bad me' thinking and her identity as an "angry" individual were reinforced by her behaviours and her maladaptive coping mechanisms, but also that being entrenched in this negative thinking meant that she often discounted the positives. Therefore, the acceptance and validation phases of the DBT programme were particularly important for her to address her perceptions and feelings about herself.

Similarly, her stigma about her diagnosis was managed as she gained a sense of belonging within the group and a level of acceptance of her personality difficulties was evidenced by her ability to share her diagnosis, experiences and difficulties with a new partner. Furthermore, I feel the earlier stages in the intervention were essential in disproving her beliefs that she would be judged by others, as well as managing her own judgements, and offering a basis for interpersonal effectiveness. She also established a safe relationship with me, as the facilitator, in which effective self-

soothing strategies and identification of positive activities were modelled.

In the initial stages of the therapy however, Jenny highlighted how deeply embedded she felt her aggressive tendencies were. Not only did she express anger but offered only negative behavioural examples, possibly establishing her identity or a sense of belonging in a highly emotive group. She may also have felt that the removal of old coping strategies would leave her with new, unfounded strategies. Nonetheless, Jenny responded well to positive reinforcement following her first example of use of skills and her presentation changed between sessions to focusing on examples of how she was using the learnt strategies. Jenny responded well to some of the more didactic sessions particularly as they enabled her to express the concepts she had understood by providing the 'right answers'. The more experiential tasks appeared to trigger feelings of humiliation linked to failure and exposure.

Jenny worked collaboratively during therapy, for example reflecting on a personal situation or exploring how to adapt the concept of a new coping strategy to her personal interests and situations in the group. She extrapolated this to working collaboratively with her peers in addressing their own situations. Therefore, the group setting not only helped her to overcome her personal challenge of group settings, but also offered the opportunity to support her peers. Although this allowed Jenny to shift focus from

her 'victim' status somewhat she maintained this role with the most dominant and stable group member, for example, to help with writing tasks, despite having these capabilities.

Jenny's attachment to "protector" figures of the group revealed her difficulties with her own care givers. In terms of attachment, individual sessions would have offered the opportunity to help her attach further to positive individuals and managed her attachment to the group member, which had potential to re-enact the "smothering" relationship with her mother. I modelled and monitored group member interactions and effective communication to support her to engage in healthy and collaborative behaviour with peers. Nonetheless, I feel that, whilst the interpersonal effectiveness module offered an understanding of how to manage and sustain a relationship, a focus on developing an appropriate support network and behavioural work to enhance her social independence would have been beneficial.

Jenny's progress was not strictly steady. However, her decline in progress during May could be conceptualised by her reduction in maladaptive coping strategies but her relative inexperience in utilising her new skills, leaving her exposed to the intense negative emotions she felt. This came at a time when she was experiencing anxieties about the end of the group, coupled with her increased paranoia, resulted in a heightened sense of vulnerability. This manifested in purchase of a gun for protection. This incident was appropriately



managed through joint working to support Jenny to identify the function of the gun and how to appropriately manage what she was experiencing.

It was necessary to formulate her behaviour with the care co-ordinator to offer peer reassurance and support, which had a secondary effect on Jenny in enhanced listening skills and their positive therapeutic relationship. In terms of therapy, Jenny was able to continue to work towards implementing her coping skills and re-structured her crisis plan to be more concrete.

Jenny's decompensation was clearly mapped out through the outcome measures including weekly diaries, which highlighted the particular increase in fear and pain at this time. Jenny's diaries also highlighted the discrepancies between her verbalised progress and her actual progress. Her responses in the 'use of skills' section denoted minimal use of skills however her verbal feedback in group detailed regular use of skills. This could suggest she was "faking good" in the group however, coupled with the objective measures and her subjective comments, may also be an indicator of her tendency to discount positives and might also indicate problems in completing the diaries. Her explanations of the use of skills, such as her distraction and relaxation strategies and opposite emotion, suggested good understanding of the skills. Her insight and original thought in the group sessions and improvements in the objective measures suggests

that she became socialised to the model and therefore may not have identified these as skills per se.

Interestingly, Jenny recorded 'urges' as solely for illicit substances despite a clear explanation of what the category meant. This may be because her constant and intense urges to drink alcohol were so normalised she had not considered to rate it. This had an advantage however, of enabling monitoring of urges to use illicit substances but relate alcohol use directly to her negative emotions, which paralleled each other. When reflecting back, Jenny was able to identify how her alcohol use and negative emotions were enmeshed which provided a concrete representation of the Five Areas Model, highlighting how automatically her maladaptive coping strategies were activated. This proved motivational in that it reinforced Jenny's awareness that she was in charge of her thoughts and emotions.

## **LIMITATIONS**

The limitations of the approach in this case study are as follows:

- 1) The use of a skills-based group therapy without individual sessions means that, despite there being evidence of efficacy for comprehensive DBT, this particular study is not comprehensive. DBT research trials have reported that individual sessions have proved a useful opportunity to embed the skills into everyday life, prevent the emergence of

maladaptive habitual behaviours and to reinforce their positive behaviours. That said Soler et al. (2009) finds evidence for improved symptoms and retention in skills groups, however only compares it against a psychodynamic standard group therapy.

- 2) It is possible that some or all of the improvement was a consequence of spontaneous recovery or other external variables, including the social relationships formed within the group or other service involvement. That said, the case study utilised multiple assessments and assessment times which tracked her progress over the 15 weeks of the group and presented a realistic representation of her progress, including times of difficulties, and all measures followed a similar upward positive trajectory.
- 3) The group method does not address the individual's formulation and therefore relies on Jenny's understanding of her own formulation, motivation and her ability to consider her individual difficulties in relation to the group material. Although this reflects the medical model in terms of using a treatment which addresses the diagnostic criterion of BPD, rather than the individual, it has proved more cost-effective to the service in that multiple patients could be treated and Jenny was clear on her formulation and her understanding of her treatment goals prior to the group commencing. Individual sessions between

the group would have also offered an opportunity to explore her feedback in the diaries further. This was not a possibility due to time and therapist restrictions.

- 4) Long-term follow up would have been useful, had time permitted. Baseline measures before beginning treatment and a one month follow-up post-treatment would have better informed her progress in treatment and the sustainability of this. However, her involvement in other services put constraints on this.

## **CONCLUSION**

Overall, the treatment appears to have been effective, as highlighted by Jenny's reduction in psychological distress, alcohol use and borderline symptoms. This case study provides a good example of using a non-adherent skills-based DBT approach to treat co-morbid BPD and alcohol dependency. As the group progressed the joint working with both Jenny's care co-ordinator and the alcohol services enabled successful completion of the group and a supported phased engagement process with the alcohol service. Furthermore, the care team determined that the skills from the group would provide excellent underpinnings for the work with the alcohol service.

## **CHAPTER FOUR**

### **A Critique of the Personal Concerns Inventory and its Adaptations: Measures of Motivation to Change and More**

## **ABSTRACT**

The Personal Concerns Inventory (PCI) was originally developed to measure motivation to change in a substance abusing population. However it is one of the few measures to have developed for use with other populations, specifically offenders. The measure is underpinned by the Theory of Current Concerns (TCC), which addresses humans as inherently goal-seeking and identifies their 'concerns' as the process of goal identification and pursuit. Therefore the PCI is based on goals as a motivational construct. Its theoretical underpinnings and the way goals are explored within 11 life areas (Home and Household matters; Employment and Finances; Partner, Family and Relatives; Friends and Acquaintances; Love, Intimacy and Sexual Matters; Self Changes; Education and Training; Health and Medical Matters; Substance Use; Spiritual Matters; and Hobbies, Pastimes and Recreation and Other) strongly aligns the PCI with the Good Lives Model (GLM). This critique presents the similarities between the GLM, the TCC and the PCI in a hierarchical framework. The proposed framework is strengthened by the reasonable validity and reliability of the PCI. However there are several versions of the PCI with differing psychometric properties. Offender scales on the PCI have weaker psychometric properties. This distinction between the variants is important considering the practical applications of this measure have been discussed as extending to use alongside the GLM, as a motivational intervention, and as a goal-setting procedure.

## **INTRODUCTION**

Client engagement in treatment is associated with treatment retention and completion, which is in turn associated with positive outcomes for the client (McMurran & Theodosi, 2007; McMurran, Huband & Overton, 2010). Furthermore, treatment engagement, retention and completion have positive implications for staff and service user satisfaction and service reputation. These benefits, ultimately, have implications for service funding. At a time when the public sector faces a difficult funding climate, and services are increasingly evaluating how they can become more efficient and effective, it is no surprise that treatment engagement, including motivation for treatment, is so widely discussed in both literature and daily clinical practice.

Treatment engagement is explained through a range of related processes, including treatment readiness; readiness to change; responsivity; treatment motivation; motivation to change; and therapeutic or working alliances to name a few (Mossiére & Serin, 2014). Treatment engagement and its explanatory processes depend on a number of client and situational factors. The Multifactorial Offender Readiness Model (MORM) is just one framework that considers a range of factors related to readiness, with a view to facilitating improved treatment engagement (Ward, Day, Howells &

Birgden, 2004). The factors described as facilitating or hindering treatment engagement include both internal factors such as volitional; cognitive; affective; behavioural; and personal identity, and external factors such as circumstances; location; opportunity; support; programme; and timing. Therefore a systemic approach to treatment engagement is endorsed.

One measure with a focus on the volitional aspect of behaviour change and which has also been used as a procedure for enhancing motivating to engage in treatment is the Personal Concerns Inventory (PCI; Cox & Klinger, 2000). The PCI is based on a theory of goals as a motivational construct. The PCI's underlying Theory of Current Concerns (TCC; Klinger, 1975; 1977) portrays humans as inherently goal-seeking and posits 'current concerns' as the process of goal identification and pursuit. The PCI expresses this as concerns or goals in 11 life areas related to human needs, for instance satisfaction in relationships, work, health and leisure. The TCC's cognitive and affective processes of goal pursuit are encompassed in the PCI rating scales for each articulated concern, for example goal value, knowledge and flexibility in how to achieve the goal, confidence in goal-related capability and anticipated satisfaction from its achievement. These ratings are scored to determine how adaptive or maladaptive the individual's overall motivational profile is in terms of motivation to change.



The principles of the TCC are aligned with another goal-focused approach: the Good Lives Model (GLM; Ward, 2002; Ward & Stewart, 2003; Ward & Marshall, 2004; Ward & Gannon, 2006). The GLM is a strengths-focused rehabilitation theory that identifies an individual's goals as directed at attaining universally-valued primary goods, whether in socially acceptable or unacceptable ways. These primary goods are highly similar to the PCI life areas. The GLM also highlights distinct criminogenic needs or goal obstacles which hinder the successful pro-social attainment of primary goods, thereby producing offending behaviour. However, the GLM has been criticised as lacking a measure of GLM-based goals (Andrews & Bonta, 2003).

That said, the GLM literature consistently reports increased motivation and engagement (Whitehead, Ward & Collie, 2007; Lindsay et al., 2007; Ware & Bright, 2008; Langlands, Ward & Gilchrist, 2009; McNeill, 2009; Willis & Ward, 2013; Willis, Ward & Levenson, 2014). However, these improvements are mainly based on low attrition or completion rates, time to re-offending and participant/therapist feedback or ratings (Ware & Bright, 2008; Simons, McCullar & Tyler, 2006; Lindsay et al., 2007; Whitehead, Ward & Collie, 2007; Gannon et al., 2011), rather than selected outcome measures related to motivation, engagement or goal-related measures. Furthermore, programmes apply the GLM framework in varying ways, which has made empirical evaluation of the model difficult. More contemporary programmes more explicitly apply the

framework (Willis & Ward, 2012). Thus with the advancement of GLM-consistent interventions, and the gap in relevant outcome measures, the PCI could be valuable in both operationalising the GLM principles and offering a reliable and valid means of evaluating GLM-consistent interventions.

The PCI could also enhance motivation through the articulation and processing of specific individualised and meaningful goals, including identification of obstacles and conflict between goals (McMurran et al., 2008). The focus on problematic behaviours as helping or hindering goal attainment allows for cost-benefit analyses of such behaviours (Campbell et al., 2010). The PCI's potential as a motivational intervention (Sellen et al., 2013; McMurran et al., 2013) means it could expand the range of motivational interventions in psychotherapy (Ogrodniczuk, Joyce & Piper, 2005).

In terms of forensic applications, the PCI has variations for use with offenders and a short version with a focus on personality difficulties that has been used with PD population (Sellen et al., 2006; Sellen et al., 2009; Sellen, Campbell & McMurran, 2010; McMurran et al., 2013). These variants could develop a field so far restricted to clinical descriptions (Clarke, Fardouly & McMurran, 2013) and, as discussed in Chapter 1, saturated by motivational interviewing.

This critique will explore the PCI's applicability as a motivational intervention and measure, in addition to its wider potential to operationalise and measure the GLM. It will do this by comparing the

underlying theory and principles of the GLM and TCC; assessing the reliability and validity of the PCI with a view to considering whether the PCI is relevant within the GLM; and how the PCI can be clinically applied.

## **THEORETICAL UNDERPINNINGS**

The use of goals as a motivational construct is familiar in the clinical literature (Karoly, 1993; McMurren & Ward, 2004). The main focus has been exploring the cognitive and affective basis of goal commitment and pursuit, as expressed in an expectancy-valence formula (Hollenbeck & Klein, 1987 cited in Diefendorff & Croyle, 2008). Expectancy is the probability that effort will lead to successful performance, and is thereby a moderator in how easily the task is performed; valence is the anticipated emotional satisfaction at goal achievement, and thereby a moderator of the positive or negative outcomes associated with goal pursuit.

The TCC frames the processes of goal pursuit in 'current concerns' (Klinger & Cox, 2004), which is an active goal encompassing the internal state based in the cognitive and affective processes of goal pursuit. This description expresses the interaction between goal commitment and time to achieving or abandoning the goal (Klinger & Cox, 2004). The TCC also posits that each goal has its cognitive pathway driving goal-focused motivation (Pothos & Cox,

2002; Fadardi & Cox, 2006). This is important in terms of how goals can be prioritised (Cox & Klinger, 2002)

Therefore the TCC principles also provide substance to our understanding of cognitive biases in terms of how a person attends to goal-related cues in the environment (Pothos & Cox, 2002; Tapper, Pothos & Fadardi, 2008). Fadardi and Cox (2006) have demonstrated this in light and heavy drinkers: the former attended more to pictures related to articulated PCI concerns whilst the latter attended more to alcohol-related pictures. This suggests validity in 'current concerns' driving a person's cognitive-motivational state, resulting in heightened sensitivity to concern-related stimuli and behaviour. It also suggests how maladaptive behaviours, such as substance abuse, can be reduced by enhancing other satisfying alternatives (Cox & Klinger, 2002).

The TCC acknowledges that development of goal commitment and pursuit goes beyond an individual's cognitive and affective processes. External factors such as the availability of opportunities, and potential obstacles, are considered alongside internal factors such as personal capabilities and resources (Oettingen, 1996). By considering these factors, the TCC therefore addresses the underlying conscious, unconscious, affective and cognitive processes as internal moderators of goal identification and pursuit (Klinger & Cox, 2004).

The TCC has parallels with the GLM. Interestingly, the two approaches have not been linked in the GLM literature, but parallels

are drawn in the PCI literature (Sellen, Gobbett & Campbell, 2013). Instead the GLM literature addresses the theory of strengths-based rehabilitation as consistent with positive psychology and desistance principles in its focus on risk reduction through developing offenders' strengths (Ward & Gannon, 2006; Woldgabreal, Day & Ward, 2014). It is a model widely accepted in practice (Ackerman & Furman, 2012), despite a lack of empirical evidence being its main criticism (Andrews, Bonta & Wormith, 2011).

The GLM uses the concept of a 'better, personally meaningful life', to indirectly increase the likelihood of desistance from offending. The GLM outlines 11 primary goods (see Table 4.1) which are universally sought by humans through individualised means: secondary goods. The primary goods are prioritised based on personal values and the secondary goods are directed by personal interests. The GLM describes four internal and external obstacles that interfere with goal attainment; i) inappropriate means to achieving goals; ii) lack of scope in primary goods addressed; iii) lack of coherence in goals; and, iv) lack of capacity in terms of personal skills or resources to achieve goals. These obstacles to goal attainment are also referred to as 'criminogenic needs', that is antecedents to antisocial routes to goal attainment.

These goal obstacles are not entirely reflective of the individual factors involved in goal pursuit and particularly omit the cognitive and affective processes described in the TCC. With this in mind, there is

an argument for using the GLM as a high-level, over-arching model, from which the TCC follows at a more specific, humanistic level. Therefore we can construct a hierarchical framework of goal-based motivation. This argument is strengthened by the fact that the GLM is a somewhat abstract concept with little empirical basis, yet the TCC has strong theoretical grounding and empirical validity, in part due to its applicability idiosyncratically.

In taking this novel hierarchical approach we need to explore the role of the PCI in realising the principles of the TCC and its potential place in the hierarchy. It is suggested the PCI would be the final stage in the hierarchy in terms of its idiosyncratic application of the GLM and TCC principles. In order to evidence this suggestion, this critique must address whether the PCI actually enacts the model at a person-centred level.

## **THE PERSONAL CONCERNS INVENTORY**

The PCI is administered as a semi-structured interview with clear, standardised instructions, rating scales and response templates. It takes on average between 1-2 hours to administer.

Respondents goals are assessed against 11 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; and 11) Hobbies, Pastimes and Recreation and 'Other' for any concerns that cannot be categorised. These life areas are replicated in the wider literature of functional capabilities and therefore reflect a universal approach to human needs (Nussbaum, 2000; Langlands, Ward & Gilchrist, 2009), including the GLM primary goods.

Table 4.1: Parallels between the primary goods and life areas

<b>GLM Primary Goods</b>	<b>PCI Life Areas</b>
Life (including health and daily functioning)	Health and medical matters; Self-changes; Substance Use
Knowledge	Education and training
Excellence in play	Hobbies, pastimes and recreation
Excellence in work (including mastery)	Employment and finances
Excellence in agency (autonomy, self-management)	Self-changes
Inner peace (free from emotional distress)	Self-changes; Substance use
Friendship (including intimate relationships)	Partner, family and relatives; Friends and acquaintances; Love, intimacy and sexual matters
Community	Friends and acquaintances
Spirituality (purpose and meaning in life)	Spiritual matters
Creativity	Hobbies, pastimes and recreation
Happiness	Hobbies, pastimes and recreation; Substance use; Family and acquaintances; Love, intimacy and sexual matters

Assessment in each life area directs respondents to a) articulate either an unpleasant 'concern' to avoid or remove, or a pleasant 'concern' to achieve or obtain, b) specify what they would like to happen or how they would like to resolve or address the concern and c) quantitatively rate the concern on scales related to the cognitive and affective processing of the goals and their practical pursuit. The scales listed in Table 4.2 are rated between 0 (not at all) to 10 (the most imaginable). The first stages reflect the GLM's secondary goods in terms of how an individual will achieve the primary good, whilst the rating scales directly address the TCC's cognitive and affective drivers of pursuit.

Table 4.2: PCI Rating Scales

PCI Rating Scales	
Importance	How important is it to me for things to turn out the way I want?
Likelihood	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?
Knowledge	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?
Commitment	How committed do I feel to make 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?
When will it happen?	How long will it take for things to turn out the way I want?
How will alcohol or drugs help?	Will using alcohol or drugs help things to turn out the way I want?
How will alcohol or drugs interfere?	Will using alcohol or drugs interfere with things turning out the way I want?

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The PCI scales enable the measurement of motivation through calculated indices describing the respondents' motivational structure. The simplest motivational indices are the average ratings for each scale across all life areas or average of all scales within each separate life area, dependent on the depth of analysis needed (Cox & Klinger, 2002). Most widely used in current research are the Adaptive and Maladaptive Motivation Indices (AMI and MMI). AMI reflects high commitment, attainability and satisfaction (commitment + happiness + likelihood/3). MMI reflects poor commitment, attainability or low emotional satisfaction (commitment -  $\sqrt{\text{happiness} \times \text{likelihood}}$ ).

To complement the analyses, a goal matrix can be constructed. Five articulated concerns are selected and ordered by importance (Cox & Klinger, 2002), thereby permitting an exploration of goal prioritisation, as outlined in the TCC's processes. The goal matrix has clinical utility in identifying goal coherence or conflict. Therefore the goal matrix also tangibly formulates two of the GLM's abstract goal obstacles: lack of scope and lack of coherence.

### *Offender Adaptations of the PCI*

Adaptations have been developed for use in forensic settings however the first six scales in Table 4.2 are used in all variations. The PCI-Offender Adaptation (PCI-OA; Sellen et al., 2006) and the shorter Personal Aspirations and Concern Inventory for Offenders (PACI-O; Campbell, Sellen & McMurren, 2010) replace the alcohol-specific scales with offending-related scales and introduce life areas relevant to offending and prison (Appendix L; Sellen et al., 2006; Campbell, Sellen & McMurren, 2010; Sellen, Gobbett & Campbell, 2013). Similarly, a short version of the PCI used with people with PD includes scales related to whether personality helps or hinders goal attainment (McMurren et al., 2013).

Despite differences in life areas and rating scales, a study with 22 offenders using the PACI-O found that similar goals were yielded as those from PCI studies (Campbell, Sellen & McMurren, 2010), indicating that differences between variations may not impact on the validity of the measure.

Sellen et al. (2013) calculate AMI of the PACI-O slightly differently by summing all but the 'reoffending' scales. The core scales have also been used to calculate complex indices which reflect the multi-dimensional nature of motivation. These complex indices include "Ambivalence" (happiness–unhappiness), "commitment/expected reward correspondence" (commitment–happinessxlikelihood) and "readiness to commit index" (commitment–

$\sqrt{(\text{happiness} - \text{unhappiness}) \times \text{likelihood}}$  (Theodosi, 2006; Cox & Klinger, 2011). The PCI-OA has utilised the 'readiness to commit index' and consequently it is fully described in Theodosi's (2006) unpublished dissertation.

In summary, the PCI's life areas, interview process and the rating scales directly reflect the TCC's, and in turn the GLM's, broader principles. In doing so it offers a practical way of applying these principles at an individual level thereby completing the proposed hierarchy. However in terms of the PCI's value in augmenting the GLM, its factor structure, reliability and validity as a measure of motivation to change will now be considered.

## **PSYCHOMETRIC PROPERTIES OF THE PCI**

### *Factor Structure*

Several principal component analyses (PCA) have been conducted on the PCI, of which Hosier's (2002) was the first. His unpublished thesis used 111 second year university students who reported consuming more than 24 units of alcohol per week. Participants completed an abridged version of the PCI which used 5 life areas relevant to the population: self-change; relationships; education and training; finances; and leisure and recreation. Two components were derived. Component 1 explained 33% of the variance and component 2 explained 15% of the variance. Component 1 had high

loadings above a correlation of 0.30 (Tabachnick & Fidell, 2001) of commitment, importance, joy and likelihood. This reflected an adaptive motivational structure (AM) as higher scores on this component reflected greater importance and emotional value of goals. Component 2 represented maladaptive motivation (MM), as participants scoring higher on component 2 perceived less happiness, control and likelihood in goal achievement, and longer to achieve goals.

The two factors therefore relate to the adaptive (AMI) and maladaptive (MMI) motivation indices described in the scoring of the PCI. All studies have consistently replicated the two components even with different populations and versions of the PCI. Cox, Pothos and Hosier (2007) used 94 university students and community residents and Fadardi and Cox (2008) used 87 university students and an abridged PCI in which participants articulated one concern in 8 life areas. The PCI studies consistently reported similar amounts of variance explained by the adaptive factor (33-37.06%) and maladaptive factor (15-17.13%). The PCI factor structures in these three studies are shown in Table 4.3.

Table 4.3: Factor Structure of the PCI

PCI Scale	Component <sup>a</sup>		Component <sup>b</sup>		Component <sup>c</sup>	
	1	2	1	2	1	2
Commitment	.69	-.48	.89	-	.77	-
Happiness Anticipated at Success	.45	-.76	.82	-	.64	-
Chances of Success	.74	-	.72	-.38	.80	-

(Likelihood)

Importance	.39	-.69	.86	-	-	-
Control	.59	.55	.35	-.73	.65	-
Knowledge (Achievability)	.71	.40	.36	-.61	.72	-
Unhappiness Anticipated at Success	-	.49	-	.56	-	-
Distance from Goal Attainment	-.55	-	-	.48	-	-
Alcohol Interference with Goal Attainment	-	.43	-	.54		
Alcohol Help for Goal Attainment	-	-	-	-		

<sup>a</sup>Cox, Pothos & Hosier (2007)

<sup>b</sup>Hosier (2002)

<sup>c</sup>Fadardi & Cox, (2008)

Theodosi (2006) and Sellen et al.'s (2009) evaluations of the PCI-OA found the offence-related scales of 'Offending interferes' and 'Prison interferes' did not meet the adequacy cut off (.50). These were omitted from the analyses however when 'Offending helps' and 'Prison helps' were included in the analysis a 3 factor solution was derived (Table 4.4). The third factor: 'lack of direction', negatively correlated with AM ( $r = -.31$ ,  $p < .001$ ) but not MM. Furthermore both studies yielded a 2 factor solution highly similar to the maladaptive and adaptive factors in the PCI studies when the offending-related scales were not included in the analysis.

Table 4.4: Factor Structure of the PCI-OA

	Component <sup>a</sup>			Component <sup>b</sup>		
PCI Scale	1	2	3	1	2	3
Commitment	.78	-		.77		

Happiness Anticipated at Success	.65	-.49	.59	-.55
Chances of Success (Likelihood)	.70	.53	.74	
Importance	.58	-.61	.53	-.65
Control	.51	.77	.56	.70
Knowledge (Achievability)	.46		-.66	-.66
Prison helps	.56		.61	.57
Offending helps	.48		.55	-.47

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<sup>a</sup>Sellen et al. (2009) N =129, 3 factor model explained a total 64.74% of the observed variance

<sup>b</sup>Theodosi (2006) N=129, 3 factor model explained a total 64.75% of the observed variance

AM demonstrated stability in terms of similar loadings and variance explained across PCI and PCI-OA studies (without offending scales: 35.93%; with offending scales: 32.19%). The maladaptive factor differed both in loadings and variance explained (without offending scales: 23.13%; with offending scales: 18.72%). Furthermore, the factor loadings between the PCI-OA studies differ slightly despite using highly similar populations. It is worth noting that the PCI-OA studies used 48 participants (Theodosi, 2006) and 64 participants (Sellen et al., 2009) already in prison treatment programmes, which in itself may affect the results themselves.

Overall, AM is reasonably consistent and the 6 core scales on component 1 are clear: commitment, importance, happiness, control, knowledge and likelihood, with commitment, likelihood and happiness contributed the most. These are the scales most used in recent

research (McMurrin et al., 2013) and across PCI variants. MM scale loadings were less consistent in terms of strength and direction of loadings.

Abridged versions of the PCI in Fadardi and Cox (2008) and Hosier (2002) may explain some differences. However there is clear distinction between factors in Hosier (2002) and Cox, Pothos and Hosier's (2007) studies in that most scales loading positively on AM, load negatively on MM. Therefore, AM profiles scored high on component 1 and low on component 2 and vice-versa for MM profiles. The factor consistency, particularly in AM, allows for confidence in the deriving of motivational profiles whilst acknowledging MM is weaker.

In terms of the different versions, the PCI demonstrates more strength in consistent factor structures across more studies and with different populations. The PCI-OA is certainly not without its strengths, particularly in AM, but when compared to the PCI the addition of the offending scales weakens the factor structure. However, the core scales yield a strong 2 factor model that reflects that of the original PCI.

### *Reliability*

#### *Internal Consistency Statistics*

Internal consistency calculated from the averaged rating scales across goals has been applied to the Motivational Structure

Questionnaire (MSQ), the PCI's predecessor, but not the PCI scales. Although Cox and Klinger (2002) and Klinger and Cox (2004) have used the MSQ-based studies as evidence for the psychometric properties of the PCI, the scales of the two measures are different and therefore this critique will not include statistics based on the MSQ.

Theodosi (2006) examined the PCI-OA with 83 participants listing at least six goals. A borderline acceptable Cronbach's alpha was reported for the whole PCI-OA ( $\alpha=.72$ ), and only the 'when' ( $\alpha=.73$ ) and 'offending interferes' scales ( $\alpha=.75$ ) yielded acceptable internal consistency (Nunnally, 1978). Both Theodosi (2006) and Sellen et al. (2009) reported the AM factor yielded acceptable internal consistency ( $\alpha=.72$ ;  $\alpha=0.71$ ). Theodosi (2006) reported MM factor did not ( $\alpha=.26$ ) whilst Sellen et al. (2009) reported a higher but still poor internal consistency ( $\alpha=.55$ ). The inconsistency of MM factor is likely linked to its factor instability.

### *Test-Retest Statistics*

The full PCI has not been evaluated for scale stability. However the Personal Aspirations and Concerns Inventory (PACI) has yielded stability in scales at 1 (N=199), 3 (N=152) and 6 months (N=133) with heavy drinkers (Cox, Pothos & Hosier, 2007). Significant correlations ( $p<.001$ ) were yielded on commitment ( $r=.43-.59$ ), happiness ( $r=.50-.65$ ), control ( $r=.52-.76$ ), knowledge ( $r=.37-.61$ )



and likelihood ( $r=.33-.57$ ). Importance was not used. Therefore the majority of core PCI scales proved stable.

Theodosi (2006) evaluated 54 participants completing the PCI-OA at initial assessment and, on average, 3 months later. Some significant correlations were found, however 34 participants were in treatment. Of those not in treatment only 'control' ( $r=.48$ ), 'unhappiness' ( $r=.56$ ) and 'offending interferes' ( $r=.45$ ) significantly correlated. From the entire sample most scales correlated significantly, with the exception of 'knowledge' ( $r=.24$ ) and 'prison helps' ( $r=.26$ ). Both factors yielded significant test-retest correlations, though MM was slightly more significant ( $r=.44$ ) than AM ( $r=.41$ ). Despite significant correlations, none reached reliability cut-off (.70).

Test-retest analysis on those in treatment is not an ideal methodology. Indeed, no scale demonstrated the acceptable cut-off for reliability but the significant correlations warrants further exploration with more robust methods.

### *Validity*

#### *Construct Validity*

The consistency in AM and, to a lesser extent MM, factors across PCI and PCI-OA studies supports both versions' construct validity. However future studies could also use the idiographic PCI/PCI-OA-goals to measure participation in subsequent goal-related activities,

as has been done with the MSQ (Cox & Klinger, 2004). The authors argue that this would identify whether the measure is recording and rating goals that the respondent actually values.

### *Predictive Validity*

Using multiple regression analyses, Hosier (2002) and Fadardi and Cox's (2008) studies showed that higher MM profile scores predicted higher alcohol problem scores ( $\Delta R^2=.05$ ) and alcohol consumption ( $\Delta R^2=.070$ ) respectively. Therefore the PCI has predictive validity for substance use.

Theodosi (2006) conducted Cox regression survival analysis with 89 adult male prisoners who completed the PCI-OA and had a total of 189 reconvictions a year after release. After adjusting for length of sentence, number of court appearances, convictions, offences and treatment groups, neither AM (Wald=2.00, d.f.=1,  $p=0.16$ ) nor MM profile scores (Wald=0.03, d.f.=1,  $p=0.87$ ) predicted reconviction. Sellen et al.'s (2009) same analysis with 89 male prisoners reported slightly different statistics (AM: Wald=0.09, d.f.=1,  $p=0.77$ ; MM: Wald=0.18, d.f.=1,  $p=0.67$ ), possibly because number of convictions and treatment group were controlled for. Sellen et al. (2009) also deconstructed the PCI-OA to focus on the original PCI scales and reconviction was not predicted by AM (Wald=0.04, d.f.=1,  $p=0.85$ ) or MM profiles (Wald=0.24, d.f.=1,  $p=0.63$ ). Therefore neither the PCI-OA nor PCI scales predict reconviction.

Sellen et al. (2009) evaluated an in-treatment group of prisoners (N=34) pre- and post-treatment PCI and PCI-OA scale scores and determined the PCI was more sensitive to change on both AM ( $d=0.25$ ) and MM ( $d=0.26$ ). The PCI-OA MM scores in contrast showed an unexpected increase ( $d=0.18$ ) as did 'Lack of direction' ( $d=-.37$ ).

### *Concurrent Validity*

Concurrent validity has not been evaluated with the PCI but the PCI-OA has been assessed against the University of Rhode Island Change Assessment (URICA), the Treatment Motivation Questionnaire (TMQ; Ryan, Plant & O'Malley, 1995) with 129 adult male prisoners (Theodosi, 2006; Sellen et al., 2009). Subjective staff and self-reports were also evaluated however these are not previously validated and therefore although significant correlations were yielded, they have not been included.

Sellen et al. (2009) reported MMI yielded more significant correlations with URICA stage of change ( $r=-0.30$ ,  $p<0.05$ ), staff-reported compliance ( $r=0.25$ ,  $p<0.01$ ), and the URICA pre-contemplation stage ( $r=0.25$ ,  $p<0.01$ ). AMI did not correlate with any validated measure.

In contrast, Theodosi (2006) reported AMI correlated with the URICA committed action composite score ( $r_s=.19$ ,  $p<.05$ ) whilst MMI factor did not significantly correlate with any validated measure. Therefore

Theodosi concluded only limited concurrent validity but across studies there are inconsistencies.

### *Summary*

In summary, although the PCI-OA's psychometric properties have been systematically evaluated and have shown promising results, the PCI has proved more robust in the comparable investigations. For example, both versions have strengths in factor structure, but the PCI more so. Overall this provides confidence in the motivational profiles yielded and in the use of the factors to evaluate the tool's reliability and validity, such as predictive validity statistics. Furthermore, the predictive validity of the PCI is more conclusive than that of the PCI-OA which has bearing on use of the measure with offenders in the prediction of reconviction. This weakness in the PCI-OA may be because certain confounding factors such as external supports, treatment or affective disorders were not accounted for. In terms of treatment evaluation, the PCI-OA and PCI have been found to detect change, though again the PCI is more sensitive.

In terms of reliability and validity of the measures, results are complicated by statistics that have proven difficult to establish, often due to methodological issues as in test-retest evidence. The transient and multi-faceted nature of motivation is also likely to have an impact on statistics like concurrent validity in terms of differences in theoretical underpinnings between measures of motivation.

Furthermore, the very act of measuring motivation draws attention to the construct, thereby affecting motivation; this bias is problematic when evaluating a measures psychometric properties.

Previously the PCI has been concluded as psychometrically sound (Klinger & Cox, 2004), whilst this review highlights that there are certainly strengths, the validity and reliability of the measure has been based on its predecessor, the MSQ, in the past. Therefore there is a need to evaluate the PCI using more robust methodology. Similarly, the PCI-OA shows promise as a reliable and valid measure, but needs further evaluating. There is a caveat that PCI-OA studies may use the same population, both reporting 129 male prisoners from a UK prison yet different numbers of participants in treatment.

The psychometric properties encourage consideration of the practical application of the PCI as a measure of motivation to change. In terms of use with offenders, the additional offence-related scales are weaker than its core scales; which yields a factor structure similar to the PCI, and is more sensitive to changes during treatment. This suggests the PCI has use with an offending population. With this in mind there is justification in using the PCI with offenders, yet the reasonable psychometric properties of the PCI-OA certainly do not eliminate it as useful.

## **PRACTICAL APPLICATION**

The PCI, as a psychometric measure of motivation to change can provide an assessment of the client's motivation and monitor changes within participants during programmes if a normative database of AMI and MMI is developed (Cox & Klinger, 2002; 2004). However it potentially has wider clinical utility in identifying the client's values and needs as treatment goals, establishing a clear needs-led treatment programme or intervention, and as a motivational intervention itself. All of these will be explored, including how it can be applied to augment the GLM.

The PCI/-OA's AMI and MMI offer sound means of tracking change, as evidenced in robust factor structure and treatment evaluation using the PCI-OA (Sellen et al., 2009). More specific PCI index calculations discussed, such as 'readiness to change' and 'ambivalence', deconstruct an individual's motivational processes, and therefore could offer a more thorough evaluation of individual aspects of change in motivation, such as capabilities for goal attainment. However these indices have not been psychometrically or empirically evaluated.

The use of the PCI in evaluating goal-based treatments and models is particularly useful considering the GLM lacks grounding in robust psychometric instruments (Andrews, Bonta & Wormith, 2011). Willis and Ward (2010) suggest that evaluation is difficult on the basis that the GLM is a theory, yet GLM-consistent interventions are open to evaluation. The PCI is suitable for such evaluation, both in

its role within a goal-theory hierarchy which includes the GLM, and for its psychometric properties. However it is worth noting that GLM-consistent interventions are rarely well detailed and whilst the PCI and GLM have parallels, it is unclear whether this is true for GLM-consistent interventions.

The goal matrix provides a structured, collaborative approach to setting treatment goals in addition to operationalising two of the GLM's goal obstacles: lack of scope and goal coherence. The importance of the goal matrix is emphasised in Barnett and Wood's (2008) finding that lack of scope and conflict in goals related to GLM goods of agency, relatedness and inner peace at the time of offending was associated with poorer problem solving in imprisoned sex offenders ( $F(1.41)=9.384, p<0.004$ ). Thus the goal matrix's ability to identify goal obstacles and therefore resolve a poor goal plan early suggests the PCI, particularly offender versions, has a role in establishing a clear set of goals that indirectly prevent re-offending.

The PCI-OA and PACI-O's inclusion of offence-related life areas and scales supports the opportunity to think about their role in preventing re-offending. Furthermore, a focus on pro-social means of achieving primary goods is reported to support desistance from offending behaviour, and there are similarities between these and the PCI life areas (McMurrin, Theodosi, Sweeney & Sellen, 2008; Willis & Grace, 2008). In this sense the PCI literature could have a role in informing existing policies, for example addressing concerns that

Child Sex Offender Disclosure schemes may disrupt certain life areas like employment, housing and social integration (Farrall & Maruna, 2004; Willis & Grace, 2009). Indeed, society itself may interfere with offenders' opportunities to attain primary goods by pro-social means and so the importance in focusing on particular life areas in treatment is essential. For example, social and employment-focused interventions have yielded a statistically significant longer time to reoffending over standard treatment (Martin et al., 2010) and poor accommodation, social support and employment planning was predictive of recidivism (Willis & Grace, 2008; 2009). The PCI offer a means of achieving this in a personally meaningful and adaptive way.

The PCI's motivational qualities have been reported qualitatively (Sellen et al., 2006; Campbell, Sellen & McMurren, 2010; McMurren et al., 2013). Participants reported that the tool helped clarify issues and what they wanted to achieve, and how the problem behaviour might affect future plans. The latter particularly is a useful prompt into treatment. Specifically, the PCI's focus on goal articulation and its ability to capture idiosyncratic cognitive and affective processes establishes specific and clear goals; the interview also identifies goal obstacles. Anecdotal evidence supports the idea that the PCI has motivational qualities (Stevens, Bali & Chatfield, 2011) yet evaluations of the PCI as a motivational intervention are restricted to three studies.



McMurrin et al. (2013) evaluated treatment engagement rating scores, attendance and goal clarity in 76 PD patients using an RCT. The 38 participants in the control group received treatment as usual (TAU) however there was attrition at follow-up and 17 in the PCI group and 24 in the TAU were subject to analysis. The outcome measures demonstrated positive outcomes in favour of the PCI group across the board: goal clarity (Cohen's  $d=1.96$ ), treatment engagement rating scores (Cohen's  $d=1.62$ ) and attendance (Cohen's  $d=0.44$ ).

Similarly, a version of the PCI-OA aimed at treatment refusers was administered to 9 of 18 participants eligible for a sex offender treatment programme (SOTP) in an RCT. Following the intervention 5 of the 9 individuals in the experimental group either attended, self-referred or sought information about SOTP whilst only 2 out of 9 in the control group receiving no intervention made such a positive shift (Odds Ratio: 4.4, 95% CI: 0.6-34) (Theodosi & McMurrin, 2006). Conversely, improvements in URICA stage of change scores showed no difference between the groups. As outlined in Chapter 2 the stages of change measures appear fallible with this population (McMurrin, 2009).

Sellen et al. (2013) applied the PACI-O as a motivational enhancer with 37 prisoners entering treatment in a pilot study. The PACI-O was administered pre- and post-intervention to 19 participants in the experimental group whilst the 18 participants in

the control group received the PACI-O post-intervention. The increase in PACI-O AMI scores from pre- to post-treatment in the experimental group was not significant and there was no significant difference between groups in post-treatment AMI scores [ $F(1, 35)=0.95$ ,  $p>0.05$ ,  $d=0.31$ ] or Staff Treatment Engagement Questionnaire (STEQ,  $t(35)=0.47$ ,  $p>0.05$ ,  $d=0.16$ ) or the Group Engagement Measure-27 scores (GEM,  $t(35)=1.10$ ,  $p>0.05$ ,  $d=0.36$ ). The only significant finding was the greater improvement in mean post-treatment AMI for offence 'deniers' over admitters [ $t(5)=-2.34$ ,  $p=0.03$ ,  $d=0.99$ ]. As discussed in Chapter 1, this indicates the PCI-OA might benefit the most problematic populations.

The PCI studies are not without their weakness: underpowered studies, amended versions of the PCI, and a restricted range of psychometric measures that may not capture what the PCI is trying to achieve. What cannot be avoided is that, in evaluating any motivational intervention, both therapist-rated and client-rated measures of motivation are susceptible to success and response bias respectively, highlighting the need to carefully select appropriate measures and complement this with qualitative data. Therefore conclusive evidence of increased treatment motivation or engagement requires further investigation, but this is certainly worthwhile.

A single-case study design would more closely evaluate the PCI's motivational effects by providing qualitative data and a closer

evaluation of the process of change. Furthermore, single-case designs reflect the PCI's person-centred approach and can attempt to evaluate idiosyncratic PCI-goals. This design has been used to explore treatment progress in GLM-consistent interventions and has described the success that goal-setting, GLM-led formulations, focus on internal and external factors to goal attainment, and goal progress monitoring had on enhancing pro-social behaviour. Furthermore, previously unmotivated offenders remained offence free for 5-6 years (Whitehead, Ward & Collie, 2007; Lindsay et al., 2007). The focus on large-sample studies in PCI literature is advantageous however single-case studies also have their place as the field develops.

In summary, the PCI and offender versions have a role as a measure of motivation to change yet their emerging value as motivational interventions are relatively new. This critique has initiated a discussion on its full use within offender treatment, assessment, planning and intervention. Its potential contribution to the GLM, in terms of evaluation, augmentation and potential in reduction of reoffending has also been discussed. The latter is conceptual, whilst there is real evidence of the PCI as an enhancer of motivation for treatment. These applications demonstrate the extent of the tool's clinical potential. Clinical applicability with different populations alongside its psychometric basis makes the PCI and its variants an exciting development in the field of motivation.

## **DISCUSSION**

This critique aimed to address the PCI as a measure and intervention of motivation however in doing so it has highlighted the PCI's place within the GLM framework. One observation is that motivation to change and treatment motivation are clearly not straightforward processes to address. Although this is complicated by a number of overlapping processes and the fluidity of motivation, this evaluation was supported by the PCI's clear definition of goals as a motivational construct, robust theoretical underpinnings and a structured application process

The first aim was to address the PCI's theoretical underpinnings. It is clear that the PCI has kept true to the TCC by actualising the cognitive and affective processes of goal identification and pursuit. An important revelation is how the strong parallels between the TCC and GLM mean that they might work together in a hierarchical structure of model-theory-measure. The GLM offers a broad overview of human needs, means of goal pursuit, and the obstacles or moderators to goal success; the TCC is more detailed in personal goal identification and internal and external factors that influence goal pursuit. The PCI operationalises these idiosyncratically. Therefore, the PCI, as a measure of motivation to change, is a valuable tool to both augment and evaluate the GLM.

In terms of reliability and validity, this critique has not reflected the strong psychometric properties concluded in previous literature (Klinger & Cox, 2004), which may be due to the close focus on the PCI's predecessor. That said, whilst the PCI-OA has been explored in a more systematic way, Sellen et al.'s (2009) concurrent evaluation of the PCI and PCI-OA scales highlights the PCI is robust, and more so than the PCI-OA. The offence-related scales adversely affect reliability and validity, elevating the PCI over the offender version. That said the PCI/-OA certainly has strengths at least in the adaptive motivational factor, less so the maladaptive. Usefully, the factor structure highlights that motivation is not simply adaptive or maladaptive but rather a continuum between these states.

Not only is there instability in reliability and validity statistics between variants, but inconsistencies within statistics, mostly due to problematic methodologies, for example possible skewed effects in test-retest reliability by using data from populations in treatment. Similarly, the frequent use of student populations in factor analyses potentially restricts whether, and to what extent, we can extrapolate the results to other populations. That said, the similarity in PCI and PCI-OA factors structures protect against this. On this note, the PCI variants have been tested with other populations and qualitative feedback at least suggests targeting the problem behaviour addresses specific issues and obstacles to goal-attainment.

This critique concludes that the PCI particularly has psychometric stability in the areas it has been assessed and Sellen et al. (2009) suggests that the core scales are still valid and reliable with an offending population. However there is a need to develop these investigations particularly as it becomes useful in forensic practice, both in its own right and as an addition to the GLM.

Even though the parallels are transparent, the PCI's augmentation of the GLM would be a novel approach for future research. The PCI realises the processes of the GLM - the goal-means by which we achieve human needs, individual capabilities and identification of coherence and scope. Operationalising the GLM using a psychometrically sound measure therefore offers a means of evaluating the GLM. Should this be implemented in future research, facilitators should acknowledge that the GLM is focused on what offenders were trying to achieve at the time of their offence, and is concerned with how to achieve these primary goods in a pro-social way, whilst the PCI addresses self-selected personally meaningful goals that relate to primary goods. Awareness of this distinction prevents the therapeutic focus becoming confused, but also directs consideration to the PCI's potential role in desistance from offending. On the basis of the links with the GLM and the role of pro-social attainment of the primary goods reducing recidivism, this is worth consideration.

In terms of clinical application, the PCI is a brief, economically viable tool, mainly due to its standardised instructions and detailed response forms. It has received positive feedback from respondents as increasing motivation and goal focus, and there is both conceptual and some empirical evidence of this. However this research focus is in the early stages. Qualitative feedback from respondents has certainly initiated consideration of how motivation to change and treatment motivation might improve; the process offered clarity of thought, encouragement for the future and an overall positive experience (Sellen et al., 2006; McMurran et al., 2013). Further exploration of the PCI as a motivational intervention and the moderators of change could be a future focus.

This critique has found that the PCI can be thought of in four ways; a) a theoretically sound tool based on theory which utilises a clear construct of motivation and draws strong links with the GLM; b) a tool which is brief, structured and yields a multi-faceted understanding of the person's motivational profile and dissonance between goals and is therefore clinically useful; c) a measure of motivation with some evidence of reliability and reasonable validity; and d) a therapeutic intervention, which finds that there is potential for its use as a tool in promoting desistance from problematic behaviours.

## **CHAPTER FIVE**

### **The PCI: An Effective Motivational Intervention for People with Personality Disorder in Forensic Services?**



## **ABSTRACT**

This study aims to address the poor treatment completion rates reported in people with PD. This population is particularly prevalent in forensic populations and therefore non-completion is not only problematic in terms of poorer clinical outcomes, including increased hospital admissions, but also in the poorer recidivism rates seen in offenders who do not complete treatment. Thus, treatment engagement needs to be a focus with this population. The Personal Concerns Inventory (PCI) has a robust theoretical basis, clear definition of goal-construct of motivation and offers a structured interview schedule as the basis of a brief motivational intervention. Furthermore the PCI has preliminary evidence as an effective motivational intervention with people with PD however the process of change is not fully understood. This study employs a multiple baseline single case study design that not only evaluates the effectiveness of the PCI, and a second stage of goal counselling as a dual intervention, but also investigates the process of change through repeated engagement, motivation and goal-related measures across 6 assessment times. Five participants were recruited however two participants dropped out of treatment or research following the PCI stage of the intervention. Quantitative data were inconsistent across measures and within participants and there was no conclusive finding for the effectiveness of the intervention yet certain individual

participants responded better to particular stages of the intervention. The qualitative data identified the PCI as a useful means of empowering the participant and focusing them on treatment in relation to their goals. This positive feedback and the patterns in response to particular stages of the intervention in some participants suggest value in further investigation.

## INTRODUCTION

Treatment non-completion in PD populations is high. One systematic review of people in treatment for PD identified 25 studies with a median non-completion rate of 37%, though in some cases this was as high as 80% (McMurran, Huband & Overton, 2010). Furthermore non-completion of psychotherapy was 25.6% for people with PD, which was higher than other groups (Swift & Greenberg, 2012).

Further exploration of treatment completion in a PD populations suggests that the borderline (BPD) subtype has the highest dropout rate of 67%, over other PD subtypes and axis II diagnoses (Ben-Porath, 2004). That said, Barnicot et al.'s (2011) meta-analysis of 41 studies yielded an overall completion rate of 75% for BPD patients in psychotherapy of less than a year. Again, the range of findings was broad (36-100%). Martino et al. (2012) reported a dropout of 51.3% for BPD patients in psychosocial treatment, and 70% of these non-completers dropped out within the first two months of a year-long treatment programme. This is particularly problematic when we consider the dose-response requirements, reported as between 13-18 sessions of therapy (Hansen et al., 2002).

The literature heavily focuses on BPD and there is a distinct absence of attention to ASPD populations. The prevalence of PD in male prisoners is 65% and ASPD is most heavily represented (47%) (Fazel & Danesh, 2002). Therefore, completion rates of offender

populations are of relevance where PD is concerned. Recent figures presented by the National Offender Management Service (NOMS; 2013) show treatment completion rates in community offender samples had decreased from 2012, whilst completion rates in detained offenders had increased slightly. However, this has little context in the absence of starting figures. Nonetheless NOMS (2013) does report a failure to meet the annual target. The most recent NOMS (2010) annual report to detail the completion rates against those who started identified that approximately a third (31%) of offenders did not complete an OBP. In contrast detained adult populations report a non-completion rate of 9% (Cann et al., 2003). McMurran & Theodosi's (2007) systematic review of 17 articles reported non-completion rates in a community offender sample as 45.45% and in a detained sample as 14.66%, reflecting the discrepancies in the two samples. Of course high treatment attendance and completion in an offending population needs to be considered in the context of mandated treatment attendance (Coviello et al., 2013), which is not necessarily a reflection of genuine engagement.

McMurran and Theodosi's (2007) review concluded that treatment non-completion is associated with increased recidivism rates and that community samples have a larger effect ( $d=-0.23$ ) than detained samples ( $d=-0.15$ ). Furthermore, treatment non-completers had higher reconviction rates than those who had not

entered treatment in both offender ( $d=-0.16$ ) and community samples ( $d=-0.23$ ) (McMurran & Theodosi, 2007). This suggests that those who dropped out of treatment have worse outcomes than those who have not entered treatment at all.

In terms of consequences of non-completion in a PD sample, McMurran, Huband & Overton's (2010) systematic review reported only four of 25 studies explored this. All demonstrated adverse outcomes in terms of significantly higher hospitalisation rates for non-completers (22% vs 11%,  $p=.01$ ) and therefore higher hospital costs. Clinical outcomes on global functioning were also higher for a small sample of completers of treatment than non-completers in a PD sample (McMurran et al., 2010). Of course poor outcomes are not necessarily just a result of non-completion, but rather that high risk patients are more likely to drop out of treatment. Indeed Chapter 2 highlights an emerging trend that motivational strategies are most effective with high risk individuals. Regardless, the non-completion rates encourage a focus on enhancing at least treatment retention, but preferably through enhanced treatment engagement and motivation.

A focus on enhancing treatment engagement necessitates consideration of many factors relating to the client, setting, therapy and the therapists. These factors are encompassed in the Multifactor Offender Readiness Model (MORM; Ward et al., 2004) and an amended version of the model, Treatment Readiness Model for PD

(TreMoPeD; Tetley et al., 2012). These are outlined in Chapter 2. The additional volitional, cognitive, affective, behaviour, identity, trait, relating, co-morbidity and physical factors are particularly relevant for PD in determining treatment readiness.

These readiness conditions include, but are not exclusive to, behavioural and emotional dysregulation, cognitive difficulties including poor concentration and problem solving, impulsivity and cognitive distortions, all of which are particularly prevalent in a PD population (Magnavita, 2004; Komarovskaya et al., 2007; Sorenson & Davis, 2011; Robins & Koons, 2004). These are the factors that need to be addressed in engagement strategies for forensic and PD populations.

Ogrodniczuk et al. (2004) reviewed engagement strategies with clients in psychotherapy and found 39 studies, only 15 of which were empirical. The remainder were clinical discussions. Patient-selection methods, case management and pre-therapy preparation strategies showed promise in reducing premature treatment termination. The authors noted that there was a dearth in methodologically sound studies and none related to people with PD.

Even since Ogrodinczuk's review, there have been few evaluations of engagement strategies with offenders and people with PD. Chapter 2 discussed a wider range of strategies evaluated with offenders but highlights a focus on MI. This is best summarised in McMurran's (2009) systematic review of MI with offenders which

concluded that this intervention improved retention rates, motivation to change and reduced offending rates.

In terms of PD however, in McMurran, Huband & Overton's (2010) review, 2 of their 25 studies reported evaluations of engagement strategies with this population. Therapy preparation groups (Birtle et al., 2007) and an admissions group, unit visits and 'buddy' system (Chiesa, Wright & Neeld, 2003) decreased dropout from residential therapeutic communities. Birtle et al.'s (2007) preparation group increased the mean residential stay by 38 days and decreased the dropout rate within a month from 48% to 15%. Chiesa et al.'s (2003) intervention only decreased dropout within the first 14 weeks from 31% to 24%.

Engagement strategies with PD, reported in Chapter 2, showed only 2 empirically evaluated strategies across 3 studies. The main focus was on psycho-education groups (Long et al., 2015; Banerjee et al., 2006). Overall, these studies yielded positive outcomes in terms of treatment attendance and engagement with an inpatient population. However of the 27 retrieved studies, only a goal-based strategy was evaluated with both people with PD (McMurran et al., 2013) and offenders (Theodosi & McMurran, 2006; Sellen et al., 2013). The Personal Concerns Inventory (PCI; Cox & Klinger, 2000) is originally a measure of motivation to change however qualitative feedback from those completing the PCI indicated it may enhance motivation. The PCI yielded positive outcomes for treatment

engagement (Cohen's  $d=1.62$ ), goal clarity (Cohen's  $d=1.96$ ) and attendance (Cohen's  $d=0.44$ ) with a PD population (McMurran et al., 2013).

Conversely, the offender versions did not significantly improve scores on stages of change measures (Theodosi, 2006), or staff treatment engagement and group engagement. However staff ratings of treatment engagement and group engagement did show small effect sizes in the positive direction (Sellen et al., 2013).

The measure has been critiqued in Chapter 4 which highlights the PCI as underpinned by good theory, empirical evidence and as having reasonable psychometric properties. It is therefore unsurprising that the PCI is of clinical interest.

#### *The Personal Concerns Inventory and Systematic Motivational Counselling (SMC)*

The PCI comprises a semi-structured interview in which goal identification and pursuit are presented as 'current concerns'. The interview structure follows standardised instructions that direct the respondent to articulate goals in 11 universally acknowledged life areas (Nussbaum, 2000; Langlands, Ward & Gilchrist, 2009). Importantly the PCI acknowledges the cognitive and affective processes of goal pursuit and encompasses these in rating facets, such as value, knowledge and confidence and anticipated satisfaction. The rating scores can be analysed to determine how adaptive or



maladaptive the individual's overall motivational profile is in terms of the degree to which they are pursuing valued and attainable goals. Chapter 4 also addresses other versions of the PCI which have been developed for use with offenders and a version for use with people with PD (Sellen et al., 2006; Sellen, Campbell & McMurran, 2010; McMurran et al., 2013).

Chapter 4 also discusses complex indices that can be calculated from the rating scores however these are relatively recent emergences in the literature and have not been subject to evaluation. Yet these indices may endorse the PCI as particularly relevant to certain research or treatment focus. For example 'incommensurate commitment' is also known as readiness to commit to new goal pursuits and so may be particularly relevant at the start of treatment. These additional indices can provide a richer analysis where the maladaptive motivational index (MMI) is too psychometrically unstable.

The authors recommend systematic motivational counselling (SMC) as a follow on from the PCI (Cox & Klinger, 2004). SMC draws on the motivational profiles of the PCI and focuses on developing a more adaptive profile. This is achieved through reviewing goals and concerns; exploring goal coherence; goal setting (treatment goals, developing goal stages and between-session goals); enhancing the individual's ability to reach goals; addressing goal conflict; terminating inappropriate goals; identifying new goal-drivers; and,

developing approach goals and improving self-esteem (Cox & Klinger, 2004). The Theory of Current Concerns (TCC; Klinger, 1975; 1971) underpins the PCI and SMC and is fully described in Chapter 4. It emphasises a focus on the motivational construct of goals and humans as inherently goal-seeking.

The PCI's articulation of concerns both identifies and validates what is personally meaningful to the individual. The process not only offers a potential basis for rapport building but in addition clarifies the areas an individual wishes to change. SMC follows by identifying the obstacles and attainability of the goals, particularly in relation to therapy. This dual process meets the comprehensive assessment of treatment motivation: first the exploration of the client's current aspirations and concerns, prioritisation of these and a focus on how engagement in treatment aligns with their goals (Jones, 2002).

### *Single Case Experimental Design*

Single case designs can be used to evaluate the effects of interventions on the targeted behaviour. In order to empirically evaluate treatment, single case designs implement controlled data collection through regular and repeated measures, in which an individual's change is measured against baseline. Therefore each participant is their own control. This, and repeated measures, ensure that change is due to the treatment and not an extraneous variable.

Thus the design is sensitive to potential biases and alternative explanations of change, thereby having internal validity.

Evidence for treatment efficacy is reported only if positive change coincides with implementation of the treatment, and at no other time. Furthermore, information from various data sources can be triangulated in a way that larger study designs are unable to do. Data sources will include outcome-based data but can also include qualitative exploration unrestricted to any one particular qualitative methodology (Gerring, 2006). Thus beyond evaluation of a causal relationship, this design allows exploration of this relationship qualitatively.

Repeated measures add to the richness of information about an individual's change during the study period which is otherwise lost in RCTs (Rizvi & Knock, 2008). Furthermore a functional relationship is still established despite any inter-subject variability because subjects act as their own controls. Indeed, inter-subject variability can easily be explored in small number designs and McReynolds and Thompson (1986) suggest that it can be responded to by extending the study of the target behaviour, manipulating additional variables and modifying treatment until the desired behaviour is observed. Finally the repeated measures provide an opportunity to explore the natural cycles in behaviour in a way that large number designs fail to do.

Despite being a flexible and effective method of deriving causal relationships, it is a design currently underused in psychological

research, though has been successfully employed in early research (Ebbinghaus, 1964). The design is not without its criticisms, particularly in terms of researcher subjectivity and external validity. Perhaps the most significant criticism is that of external validity; can one or few cases offer anything by way of application to the wider population? Whilst this limitation has to be acknowledged, it is also the case that small number designs focus on the individual rather than the general and that the analytical rather than statistical generalisation can be attempted.

Thus single case designs, when well-organised, are useful means of observing and understanding the relationships between certain variables whilst eliminating other explanations (Nock et al., 2007).

### *Multiple Baseline Design*

In a multiple baseline design the principles of single case designs are applied across different participants or interventions with different baseline lengths. Each participant still acts as their own control, with changes following treatment measured against baseline. Stability is established during follow-up using repeated outcome measures. However causal inferences are strengthened if the pattern is replicated across individuals with different, successive baseline lengths. Replicating the procedure with more than one participant potentially corroborates findings, and therefore has high internal

validity as a research design. Therefore multiple baseline designs are arguably one of the more robust single case methodologies.

This design is considered a time and cost-effective alternative to randomised controlled trial (RCT) to evaluate treatment effectiveness when an appropriately powered study cannot be facilitated (Morgan, 2001; Rizvi & Knock, 2008). Furthermore rigorously conducted repeated measures across subjects and a staggered baseline establish internal validity and reliability of the effect (Morgan, 2001).

The expectation is that change in scores across repeated measures would yield a clinically significant and reliable change assessed by calculating clinical significance of change (Jacobson & Traux, 1991) and the Reliable Change Index (Jacobson, 1984). These indicate movement towards the functional norm group that is not due to some other uncontrolled variable. Therefore this adds to any inferences of causation, particularly in the absence of or difficulties establishing a stable baseline.

This study did not have access to high participant numbers, making between group comparisons difficult. Therefore a multiple baseline within-subjects design was a useful means of evaluating a motivational intervention. There is of course the additional novel approach in applying an underused but valuable study design in the field of both motivational literature and with a forensic population. Finally, the small number design is an efficient and feasible way of

exploring whether there is value in applying the intervention in a larger scale study.

### *This study*

This study harnesses the value of both the PCI and a goal counselling session based on SMC. The goal counselling session aims to address the obstacles to the articulated PCI goals and understanding the role treatment has in overcoming these obstacles. In highlighting treatment as an important pro-social route to the achievement of goals, it becomes personally meaningful. Thus, this study aims to improve engagement of patients with PD in treatment by way of a two-stage motivational intervention. A single case experimental multiple baseline design repeated in 5 participants was used to monitor change in participant's behaviour and the dual intervention was replicated across participants. All 5 participants were invited to complete repeated measures at 6 assessment points over baseline, treatment phase and follow-up.

## **OBJECTIVES**

This study offered an original contribution to the field of engagement by evaluating the effectiveness of a two-stage motivation intervention in enhancing treatment engagement for forensic outpatients with PD. The first stage the PCI interview aimed to improve treatment motivation and engagement by drawing on the goal-based

component of motivation, whilst the second stage, goal counselling, aimed to support participants to be clearer about what they wanted from therapy in relation to their goals, thereby increasing commitment to treatment.

Thus the study aimed to:

- evaluate the effectiveness of the PCI and goal counselling on enhancing treatment attendance of PD outpatients
- examine the processes by which the interventions may effect change by measuring treatment engagement using the Treatment Engagement Rating Scale (TER; Drieschner & Boomsma, 2008); treatment motivation using the Treatment Motivation Questionnaire (TMQ; Ryan, Plant, O'Malley, 1995); motivational profiles; and, goal clarity (therapist-rated clarity of participants' therapy goals)
- explore the participant's experiences qualitatively to gain further understanding of the usefulness of the intervention and their perception of its effects.

We hypothesised that:

- Compared to baseline, treatment attendance will improve following the PCI and the goal counselling session.
- TMQ and TER scores will increase between baseline and after the PCI interview.

- The motivational index, calculated from participants' ratings of their therapy goals, will increase between baseline and after the goal counselling session.
- Therapist-rated goal clarity will increase between baseline and after the goal counselling session.

## **METHOD**

### *Design*

This was a multiple baseline, single case experimental design facilitated in a forensic outpatient service for people with PD within a South East London NHS Foundation Trust. Multiple assessment phases (baseline, treatment and follow-up) in the design offered an opportunity to examine the pattern of behaviour change in relation to different phases of therapy. A series of single cases are reported, each with different baseline lengths, which ensured that any changes in measures were related to the intervention rather than the passage of time or extraneous variables, such as change in therapist.

### *Participants*

All participants attended the outpatient PD service. Therefore all participants had existing diagnoses of PD made during previous hospitalisations or by their community psychiatrists. The most prevalent diagnoses were ASPD (80%) and BPD (60%) although co-morbidity of diagnoses was present. All participants had been



referred to a Mentalisation Based Therapy (MBT) group which only recruited adult males. Active mental illness and cognitive impairment was not present in this population.

During the study period 5 group members enrolled in the MBT group and all 5 group members consented to participate in the current study. Of the 5 participants, none were employed at the time of the study and all participants had left school before 16 years of age. The mean age of the sample was 42.4 years (SD = 7.09; range: 37-54).

### *Materials*

#### *a) Attendance*

Participant attendance, or non-attendance, was recorded on the electronic patient database used by the trust. Attendance was monitored throughout the study period and any discrepancies were clarified with group facilitators.

#### *b) Treatment Motivation Questionnaire (TMQ; Ryan, Plant, O'Malley, 1995)*

This 26-item self-rated questionnaire is comprised of 4 subscales: external and internal motivation, help seeking and confidence in treatment. Higher scores indicated more confidence in treatment. The individual subscales were also aggregated to report the total TMQ score.

The internal motivation subscale has been associated with greater engagement and treatment retention, and external motivation has been associated with greater attendance and treatment retention in individuals with alcohol problems (Ryan et al., 1995). The TMQ has reasonable psychometric properties in terms of construct validity with clinician ratings ( $r_s=19-20$ ,  $p<.05$ ) and internal reliability (Cronbach's  $\alpha=.78-.98$ ) (Ryan et al., 1995).

*c) Treatment Engagement Rating Scale (Drieschner & Boomsma, 2008)*

This therapist-rated scale encompasses 9 components of treatment engagement:

- i. Participation
- ii. Constructive use of sessions
- iii. Openness
- iv. Efforts to change behaviour
- v. Efforts to improve socio-economic situation
- vi. Making sacrifices
- vii. Goal directedness
- viii. Reflecting between sessions
- ix. Global evaluation of treatment engagement

The mean scores of each component were aggregated to account for overall treatment engagement but each component was also calculated to determine process of change in participants.

The measure demonstrates sufficient inter-rater reliability (ICC=0.76, N=99) and good internal consistency ( $\alpha$ =0.93, N=328) and concurrent validity with the motivation to engage scale of the Treatment Motivation Scale ( $r$ =0.47; 0.66; and 0.91, N=328) (Dreischner & Boomsma, 2008).

*d) Rating Scale of Therapy Goal Processes (Appendix M; adapted from the PCI goal ratings)*

Participants were asked to identify therapy related goals and rated these on similar scales to the PCI:

- Importance
- Knowledge
- Likelihood
- Control
- Anticipated happiness
- Commitment

The responses were measured on an 11 point Likert scale, 0 being the least, 10 the most. For each assessment time scores were

summed for each scale across the articulated goals. This gave total ratings of importance, knowledge, likeliness, control, anticipated happiness and commitment. These rating scores were analysed to provide a motivational profile; adaptive motivation as an individuals' active and flexible pursuit of goals they are committed to and anticipated happiness. However the poor psychometric properties of MMI encouraged a focus on the additional indices.

'Incommensurate commitment' had relevance to this study in terms of whether readiness to commit to treatment was enhanced by the intervention linking treatment to personal goals. Positive values indicate over-commitment, negative values indicate under-commitment and zero indicates proportionate commitment. Therefore this was calculated in addition to adaptive motivation was calculated:

$$(\text{Commitment} + \text{Happiness} + \text{How Likely}) / 3$$

Incommensurate commitment was calculated as:

$$\text{Commitment} - \sqrt{\text{Happiness} \times \text{How Likely}}$$

*e) Rating Scale for Clarity of Therapy Goals (Appendix N; adapted from McMurran et al, 2013)*

The content of the participants' therapy goals was rated on:

- Attainability (clear and specific, measurable, challenging)
- Value
- Short term or long term goal
- Approach or avoidance goal

Each facet was rated between 1 and 4 with 1 being the lowest and 4 being the highest. The goals were rated by a professor of PD research at the University of Nottingham and a Band 8 Highly Specialist Clinical Psychologist at the NHS Foundation Trust, who was unrelated to the MBT group. The therapy goals were all rated on clarity once the participants had completed the study. Thus the raters were blind to the assessment time in which the goals were written. Scores on facets of attainability and value were averaged across goals and across both raters. This provided total scores on each facet at each assessment point. Total approach and avoidance goals were tallied per participant and for each assessment point.

#### *f) Follow-up Interview*

The author conducted the interview and participants were given the choice to participate by phone or in person. The interview took between 30-45 minutes. Participants were asked for feedback on:

- any benefits of the dual intervention
- any disadvantages or problems with the dual intervention

- any effects on their perceptions of treatment
- any effects on their engagement in MBT
- how useful the dual intervention was
- general opinions of the dual intervention

### *Interventions*

All outcome measures were administered by the author and interventions were facilitated by the author, who is a Doctoral candidate with a master's degree in Forensic Psychology. The author has been placed with the NHS Foundation Trust throughout the Doctoral study period and has previously worked with the Trust as a graduate Psychology Assistant. The Trust has a number of services specialising in PD, through which the author has received both in-house training and experience in working with this population.

#### *A) Personal Concerns Inventory (McMurran et al., 2013)*

The PCI interview has been evaluated as a reliable and valid measure of motivation to change (Cox & Klinger, 2002; Cox & Klinger, 2004). As discussed in Chapter 4 there are several versions of the PCI, which have also shown reasonable psychometric properties (Sellen et al., 2009; Theodosi, 2006). For this study however the PCI short version was used due to its use in previous research with people with PDs (McMurran et al., 2013). The PCI took between 1-2 hours.

The PCI identified participants' current concerns, i.e., things they wanted to achieve or change, in up to 11 life areas. An 'other' category ensured respondents had full opportunity to respond. The life areas included:

- Home and household
- Employment and finance
- Partner, family and relatives
- Friends and acquaintances
- Love, intimacy and sexual matters
- Self changes
- Education and training
- Health and medical matters
- Substance use
- Spiritual matters
- Hobbies, pastimes and recreation
- Other areas.

Once current concerns were identified the participant outlined what would change and rated goals on scales from 0 (not at all) to 10 (the most possible). Chapter 4 outlines the 6 core PCI rating scales used (see table 4.2), which also reflect the rating scale of Therapy Goal Processes described above.

The goal ratings taken from the PCI interview were scored to calculate adaptive motivation profile  $((\text{Commitment} + \text{Happiness} + \text{How Likely})/3)$  and incommensurate commitment  $(\text{Commitment}$

minus square root of (Happiness X How Likely)). The results of these analyses were used to structure and focus the feedback in the goal counselling session. The ratings for each life area were averaged to facilitate a goal matrix through which the most salient goals for the participants were identified, again to direct the session.

*Goal counselling (adapted from SMC, Cox & Klinger, 2004)*

The goal counselling session lasted an hour and enabled the participant to further explore three of the most prioritised and valued goals outlined during the PCI interview. Counselling on goal attainment was achieved through the use of an obstacle formulation worksheet, specifically created for this session (Appendix O). Treatment engagement was emphasised as a means of overcoming obstacles to participant's goals during this session. The following aims directed the goal counselling session:

- 1) Valuing and prioritising PCI-identified goals
- 2) Identification of goal obstacles and the factors maintaining these obstacles
- 3) Identification of factors to support overcoming goal obstacles, with a focus on treatment engagement
- 4) Identification of how treatment supports the attainment of personal goals

*Procedure*



Ethical approval was received from REC Northampton in April 2014 (IRAS 14/EM/0181; Appendix P).

Participants were introduced to the study by the group facilitators: a Consultant Clinical Psychologist and Nurse Specialist. Those who agreed met with the researcher who shared the information sheet (Appendix Q). A minimum of 24 hours was given before the consent form was signed (Appendix R). At consent, participants were provided with a timeline of the 6 assessment periods and interview dates. At each of the 6 assessment times participants completed the TMQ, therapy goal questionnaire and the group facilitator completed the TER. Attendance was recorded each week by group facilitators in the client's case notes. Participants were given the option to participate in the assessments either onsite or remotely.

All participants received both the PCI and goal counselling session in the same sequence (see Figure 5.1). Only the baseline length differed across participants in order to determine the changes were due to the treatment rather than an extraneous variable. Three weeks separated each assessment time, therefore Participant 1 (P1) and Participant 4 (P4) received the PCI intervention three weeks after the first assessment point; during which time Participant 2 (P2), Participant 5 (P5) and Participant 3 (P3) continued on baseline; in week 6 P1 and P4 received the goal counselling and P2 and P5 received the PCI while P3 continued on baseline; in week 9 P1 and P4

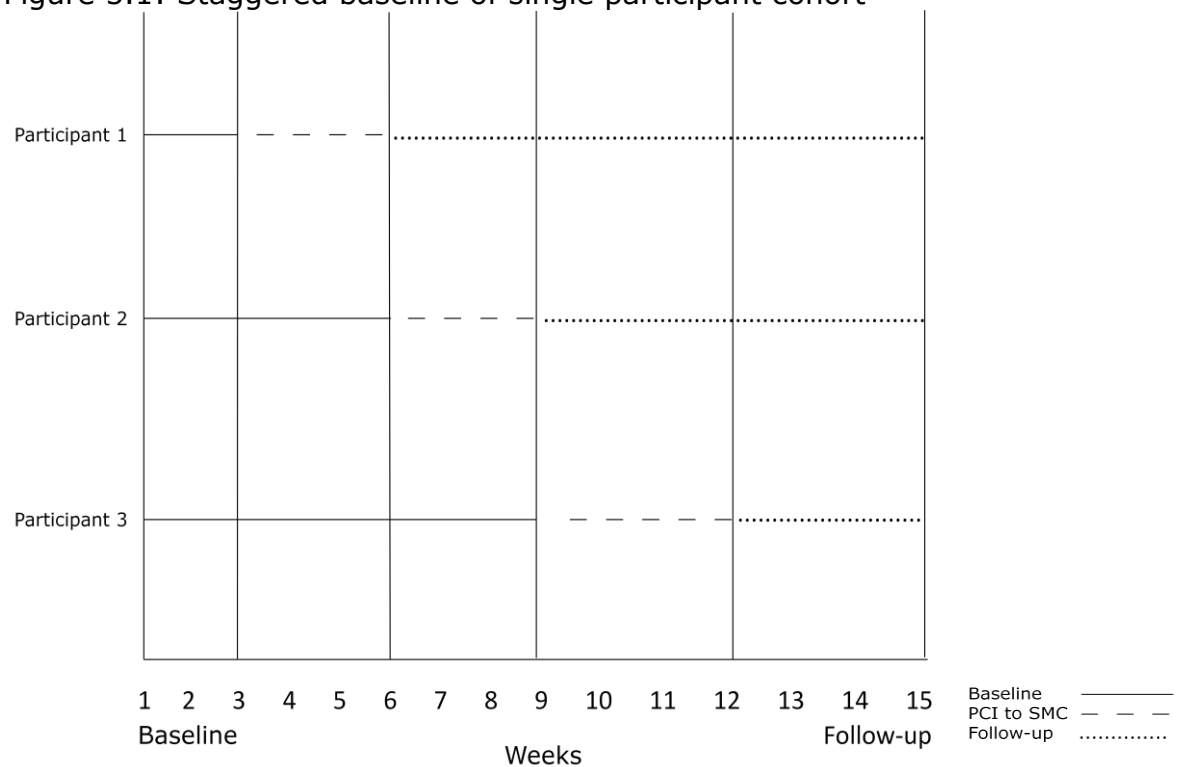
entered the follow-up phase, P2 and P5 received the goal counselling and P3 received the PCI; in week 12 P1, P2, P4 and P5 were in the follow-up phase and P3 received the goal counselling. In week 15 all participants completed the final follow-up.

During the PCI interview the standardised instructions were delivered and the semi-structured interview conducted. During the goal counselling session the session agenda was set and participants were guided through a review of their goal matrix and motivational profile, obstacles to their goals, and how to overcome these.

Participants were invited to a follow-up interview, however this was optional. Their experiences of the dual interventions, whether it was useful, whether they felt it enhanced their treatment experience and engagement was discussed during telephone interviews lasting up to 45 minutes.

The PCI, goal counselling, outcome measures and follow-up interview were all delivered by the researcher.

Figure 5.1: Staggered baseline of single participant cohort



### Analysis

Where possible visual analysis provided an understanding of any changes detected across the repeated measures (see Appendix S for raw data). This is conventional analysis in small number designs, with the caveat that chart lines do not represent data between the three-weekly time points. Visual analysis is applied alongside clinical significance and reliability of change (Graham, Karmarkar & Ottenbacher, 2012). These were calculated where possible to determine whether any change was large enough to be reliable and whether the participant's change denotes a healthier profile (Jacobson & Truax, 1991; Kendall et al., 1999). Clinical significance (CS) is best determined through normative comparisons however no

measure used has a normal population. Therefore dysfunctional populations were used for the TER (Drieschner & Boomsma, 2008), TMQ (Ryan et al., 1995) and goal clarity (McMurran et al., 2013) measures. The SD of these population means enabled the calculation of improvement as pre- to post-change of 2SD from the population mean (Jacobson & Traux, 1991; Evans, Margison & Barkham, 1998).

Reliable change criterion (RC) determines that any change is related to the treatment and not measurement error. RC is present if a score greater than 1.96 is found using the formula:

$$\frac{(\text{Post intervention score} - \text{Pre-intervention score})}{\text{Standard difference}}$$

Standard difference was calculated using Jacobson and Traux's (1991) formula:

$$\sqrt{2(\text{Standard Error Mean})^2}$$

Jacobson and Traux (1991) calculate the standard error mean as:

$$\text{SD of dysfunctional norm} \sqrt{1 - \text{test-retest reliability}}$$

If the participant demonstrates both RC and CS they are considered recovered. However RC without CS simply suggests the client has improved.

#### *Attendance:*

Attendance percentage was calculated for each phase and presented graphically.

*TMQ:*

For each participant, the TMQ total score was subject to visual analysis and individual subscale data were explored descriptively. Clinical significance and reliability of change were calculated.

*TER:*

For each participant, the TER total score was subject to visual analysis and individual subscales were explored descriptively. Clinical significance and reliability of change were calculated.

*Goal Process Ratings:*

For each participant subscales were subject to visual analysis. The goal ratings were also scored to calculate adaptive motivation profile  $((\text{Commitment} + \text{Happiness} + \text{How Likely}) / 3)$  and incommensurate commitment  $(\text{Commitment} \text{ minus square root of } (\text{Happiness} \times \text{How Likely}))$  and these were subject to visual analysis. Adaptive motivation had a score range of 0 to 10; incommensurate commitment had a score range of -10 to 10. These were analysed descriptively.

*Goal Clarity Ratings:*

Inter-rater reliability was calculated (Appendix T). Attainability and value were subject to visual analysis and all facets were explored

descriptively. Clinical significance was calculated. Approach and avoidance goals were reported descriptively.

### *Follow-up interview*

The follow-up interview data were analysed using simple thematic analysis (Braun & Clarke, 2006). The transcripts from the interview were initially coded for relevance and importance. That is anything that related to the key issues of the motivational intervention, perspectives of treatment and goals. The coded data was then organised into themes. For example, 'help-seeking' was initially coded along with 'readiness' and 'confidence' to identify the sub-theme of 'commitment', which identified the 'treatment motivation and engagement' theme.

## **RESULTS**

The sample had a mean age of 47.4 (SD: 7.09) and all were White British males. Their characteristics are described in Table 5.1.

Table 5.1: Participant Characteristics

Individual Participants		
Employment	Unemployed	P2, P3, P4, P5
	Retired	P1
Diagnosis <sup>a</sup>	Antisocial	P2, P3, P4, P5
	Borderline	P1, P2, P5
	Dependent	P2
	Paranoid	P1

Length of time at WMC <sup>b</sup>	Less than year	P4
	Over a year	P2, P5
	2 years	P1, P3
Referrer	Community mental health team	P3, P5
	Social Services	P4
	Psychology service	P1
	Probation	P2

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<sup>a</sup> participants had multiple diagnoses

<sup>b</sup>Time since first referral but not consistent attendance however length of time did not reflect consistent attendance to either individual or group therapy.

### *Attendance*

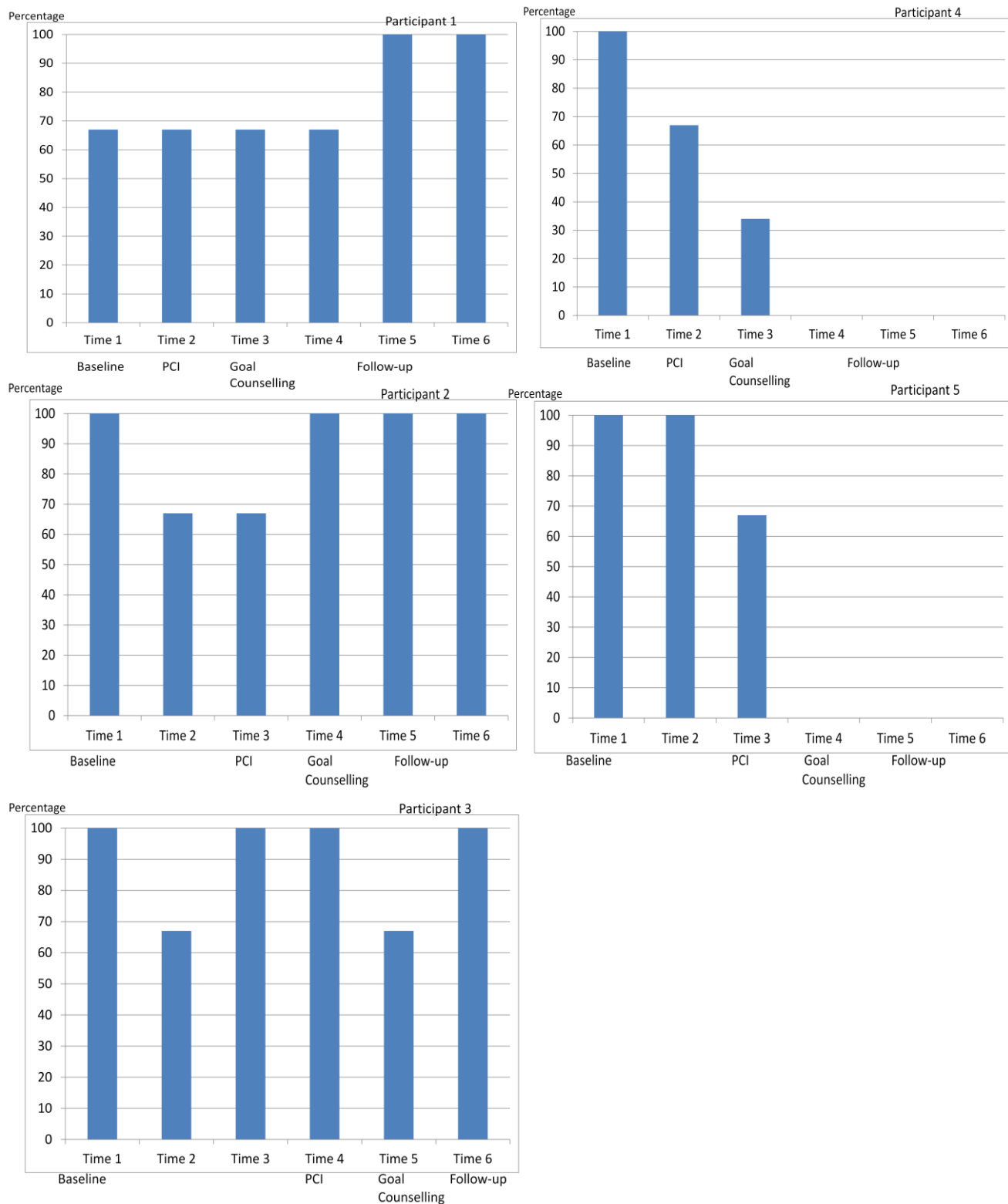
Over the study period the participants were offered a total of 14 group sessions and one individual session.

Each participant experienced 1 unavoidable absence, such as surgery or a holiday. P1 missed four of the total offered sessions, P2 and P3 missed two. P4 and 5 are difficult to report considering their data are incomplete. P3 had the most stable attendance but this was not concordant with either intervention and only P2 showed improved attendance following the intervention; however prior to this only had two absences. P1 showed no change directly after the intervention but his attendance did stably improve by the end of the study period. P4 dropped out of the group following goal counselling and therefore data could not be collected for the remainder of the study period despite no formal withdrawal from research. Conversely P5 completed assessment time 4 but did not attend the goal counselling

session and withdrew from research. However he did remain in treatment. Prior to his withdrawal only one session had been missed. Therefore treatment retention was 80%.



Figure 5.2: Attendance percentage



## *Process Measures*

### *Treatment Engagement*

The TER was completed for all 5 participants mainly by one group facilitator, a Nurse Specialist. However at T3 the second group facilitator, a Consultant Clinical Psychologist, completed the assessments for P1, P2, P3 and P5 due to staff absence.

Figure 5.3 shows TER total scores were inconsistent across participants, with the exception of a sharp decrease at T3. P1 demonstrated an increase in engagement score after goal counselling; P2's engagement score increased after the PCI and stabilised after the goal counselling; P3 also increased after the PCI but decreased slightly following the goal counselling; and P4 and P5's were difficult to interpret due to incomplete data. However P5's score had started to increase following the PCI and P4's score was reasonably stable throughout until his dropout from the group. Thus, increases in TER score were not consistently concordant with either the PCI or goal counselling.

Table 5.3 shows there was no clinically significant change or reliable change on the overall TER scores for most participants. Only P4 showed clinically significant and reliable change from pre- to post-scores however this was in the unexpected direction and therefore highlights his complete withdrawal from treatment. P4 demonstrated clinically significant change in an unexpected direction on all facets of the TER (Appendix U).

Figure 5.3: TER total scores by participant

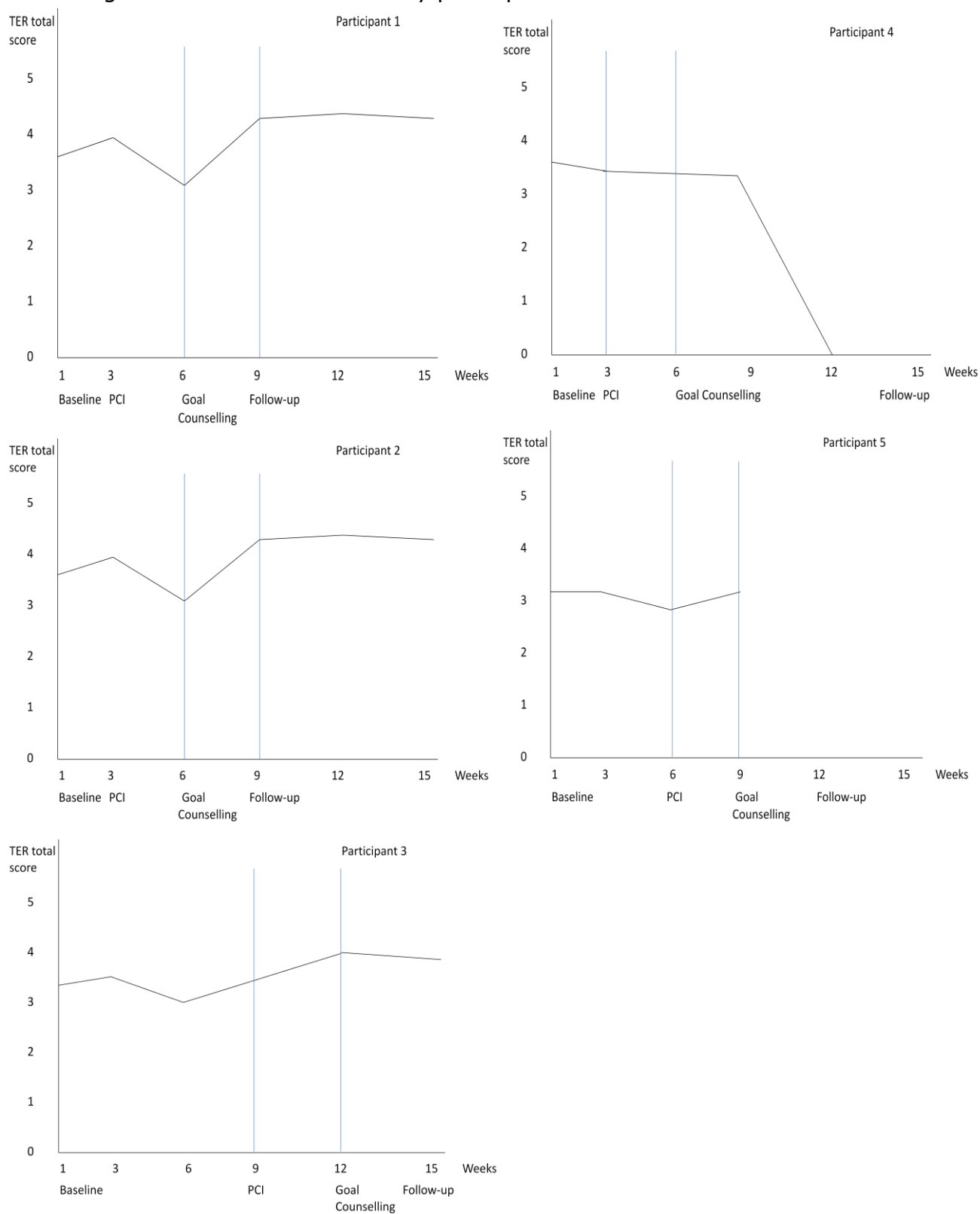


Table 5.2: TER pre- and post- scores and dysfunctional group means and SD

<b>P1</b>		<b>P2</b>		<b>P3</b>		<b>P4</b>		<b>P5</b>		<b>Dysfunctional Population</b>	
Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Mean	SD
3.56	3.40	3.74	4.10	3.23	3.61	3.50	.30	3.08	3.20	3.25	0.74

\*Dysfunctional population taken from Drieschner & Boomsma (2008)

Table 5.3: Clinical significance and reliable change (above 1.96) of TER overall scores

Ppt	Clinical Significance	Reliability of Change
P1	No	0.31
P2	No	-0.70
P3	No	-0.74
P4	Yes	<b>6.24</b>
P5	No	-0.23

Other participants demonstrated a more varied picture across the facets of the TER. P5's participation was close to clinically significant change in the unexpected direction however on global engagement was 1 SD above the mean for the dysfunctional group. The baseline for global engagement was high for all participants however P2 still moved 2 SD and P1, 3 and 5 moved 1 SD. Only P3 showed a reduction on pre- and post-global engagement scores. P2 moved 1 SD on 'use of therapy sessions' however more change was seen for 'between session use of therapy'; P2 and P3 also moved 1 SD, although P3's post-scores decreased. The only facet to yield positive change in 3 participants was goal directedness. Although not clinically significant P1, 2 and 3 moved 1 SD from the dysfunctional mean.

### *Treatment Motivation*

Most participants completed the TMQ at all 6 assessment times with the exception of P4 who completed 4 assessment times and P5 who completed 3. All assessments were completed within a week of the assessment period, though not always on the specific assessment day due to participant absence.

Figure 5.4: Total TMQ scores

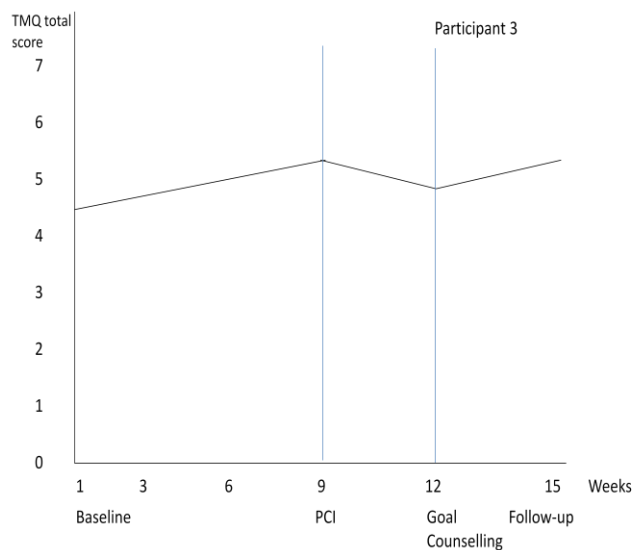
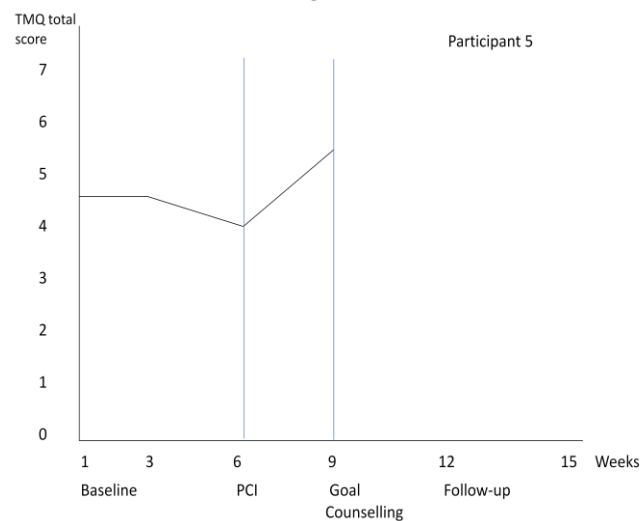
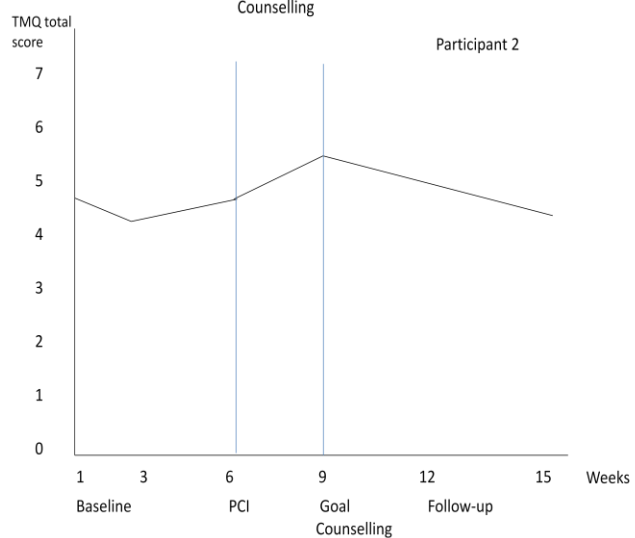
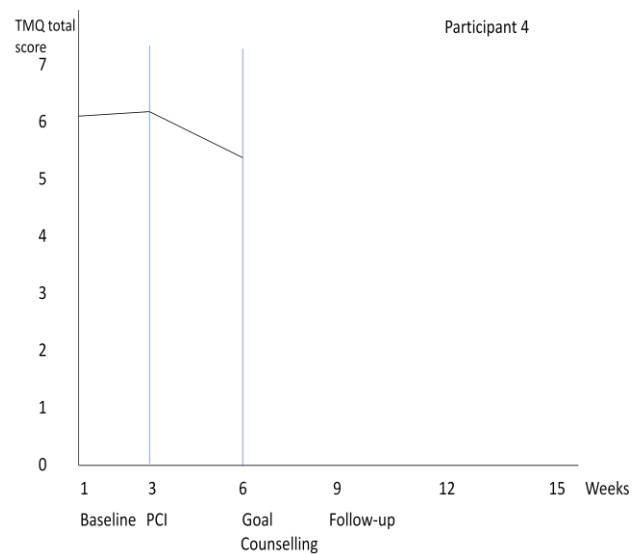
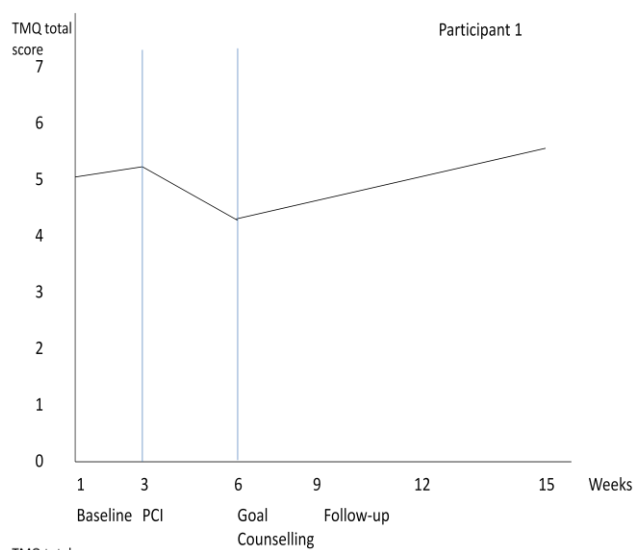


Table 5.4: TMQ pre- and post-group scores and dysfunctional norm mean and SD

	<b>P1</b>		<b>P2</b>		<b>P3</b>		<b>P4</b>		<b>P5</b>		<b>Dysfunctional Population* (n=78)</b>	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Mean	SD
<b>External Motivation</b>	3.50	4.00	4.25	4.00	1.00	1.75	4.50	4.00	3.50	3.00	3.04	0.74
<b>Internal Motivation</b>	6.40	6.66	6.30	4.90	6.90	7.00	6.66	6.00	6.10	5.55	4.58	0.68
<b>Help Seeking</b>	6.10	6.16	4.50	4.60	4.80	6.16	6.80	5.16	3.20	4.30	1.88	0.94
<b>Confidence in Treatment</b>	4.80	4.60	3.40	3.50	5.00	3.50	6.50	5.60	2.60	3.10	4.40	0.83

\*Dysfunctional population taken from Cahill et al., (2003)

Table 5.5: Clinical significance and reliable change (above 1.96) of TMQ score

	<b>External Motivation</b>		<b>Internal Motivation</b>		<b>Help Seeking</b>		<b>Confidence</b>	
Ppt	CS	RC	CS	RC	CS	RC	CS	RC
P1	No	-1.02	Yes	-0.58	Yes	-0.10	No	0.36

P2	No	0.51	No	<b>3.10</b>	Yes	-0.16	No	-0.18
P3	No	-1.53	Yes	-0.22	Yes	<b>-2.18</b>	No	<b>2.72</b>
P4	No	1.02	Yes	1.46	Yes	<b>2.63</b>	No	1.63
P5	No	1.02	No	1.22	Yes	-1.76	No	-1.46

---



Figure 5.4 shows that the TMQ total score increased for P1, 3 and 5 across the assessment times but P2's scores fluctuated during the study period and ultimately returned to baseline. In part, P2's fluctuation in scores is due to his high increase in motivation scores following the PCI. Aside from P5, all other participants showed varying degrees of a decrease in score following the PCI. Conversely, P1 and P3 showed increases after goal counselling whilst P2's scores decreased after the goal counselling. Therefore, although there is some indication that the interventions impacted on motivation, neither the intervention stage nor direction of change was consistent across participant.

Table 5.4 highlights changes in different facets of treatment motivation as inconsistent across participants. For example, confidence in treatment increased for participants P2 and P5 but decreased for all other participants. Similarly, P2's internal motivation decreased whilst P1 and P3's increased. P1, 3 and 4 demonstrated clinically significant change on internal motivation however only P2 demonstrated reliable change, in the unexpected direction. P4 and P5's decrease in internal motivation is unsurprising considering their early withdrawal.

All participants demonstrated clinically significant change on help-seeking facets however only P3 and P4's change was reliable; the former's score increased and the latter decreased. This denotes P3 as 'cured' and P4 as significantly deteriorated in appropriate

recognition and action towards help. No other facet yielded clinically significant change and only P3 demonstrated reliable change on treatment confidence, again in the unexpected direction.

### *Goal Ratings*

All participants articulated at least one personal goal at each assessment time with the exception of P4 and P5. P4 and P5 did not complete therapy goals after assessment time 3 and 4 respectively.

Figure 5.5: Participant Goal Ratings

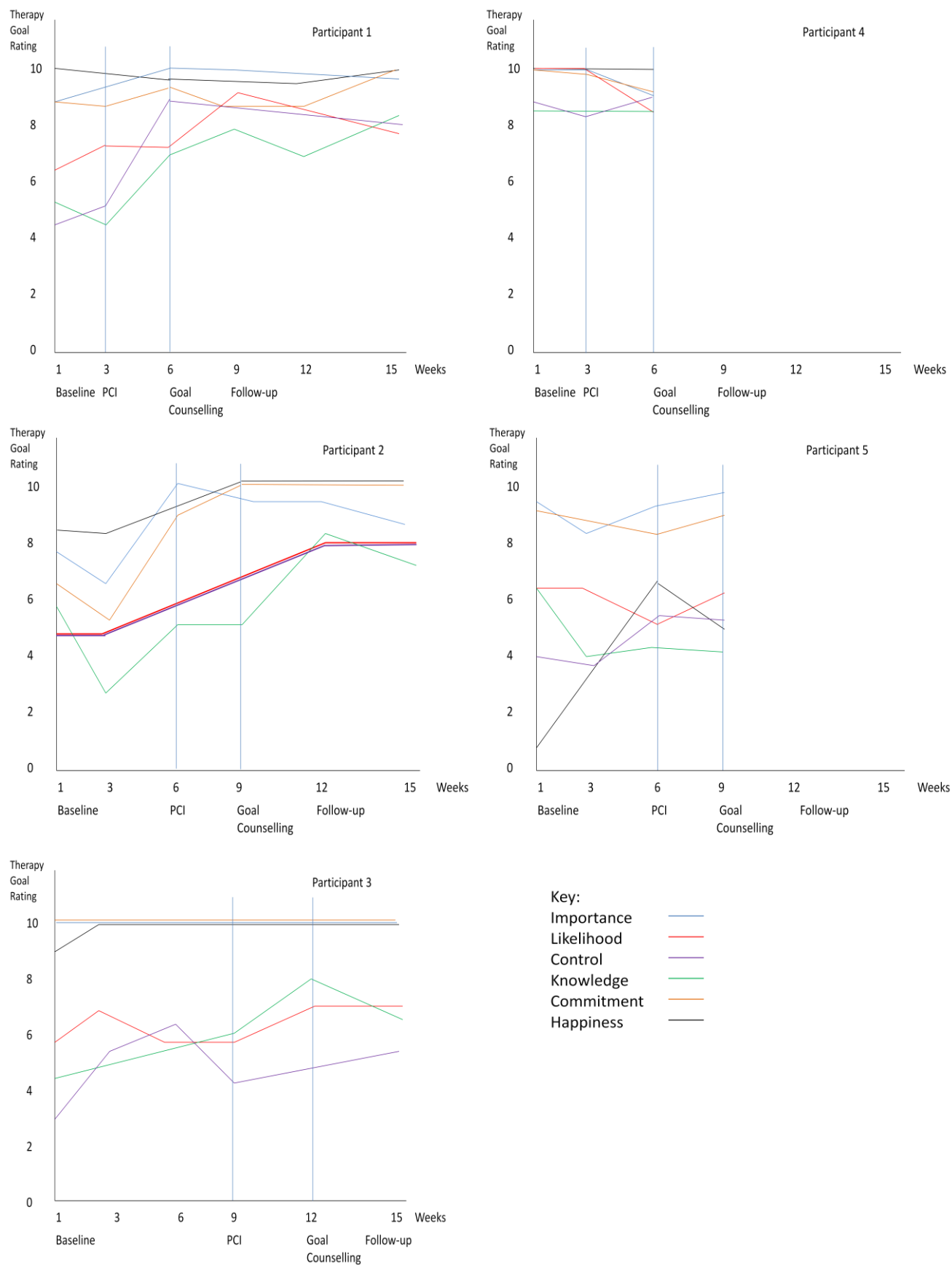


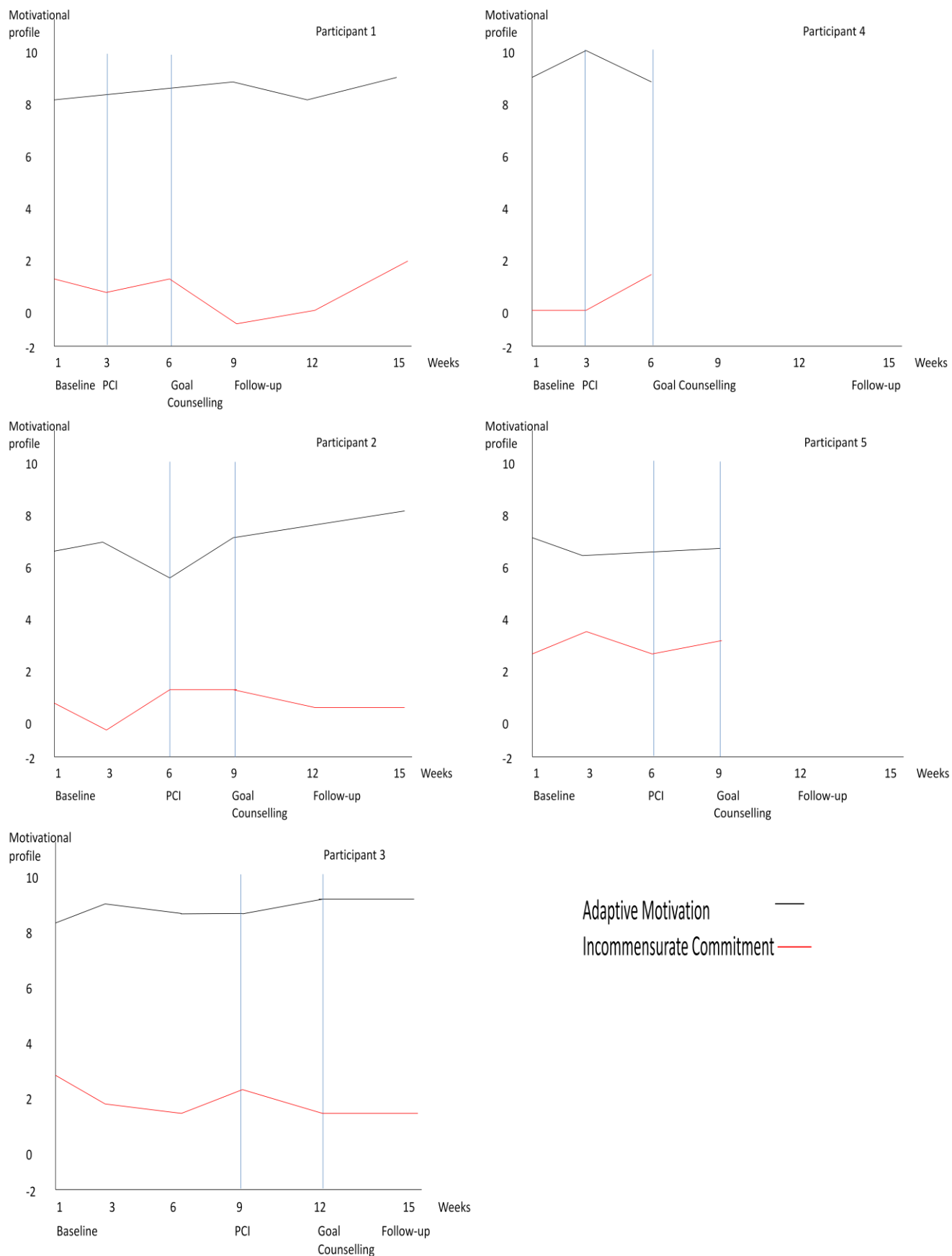
Table 5.6: Goal process ratings pre- and post-group score

Ppt	<b>Importance</b>		<b>Likelihood</b>		<b>Control</b>		<b>Knowledge</b>		<b>Commitment</b>		<b>Happiness</b>	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
P1	9.00	9.33	6.33	7.00	4.66	7.33	5.33	7.66	9.00	9.66	10.00	9.66
P2	7.66	8.00	4.33	7.00	4.5	1.00	5.33	6.00	6.66	9.00	8.33	10.00
P3	10.00	10.0	5.50	7.00	3.00	4.66	4.50	6.00	10.00	10.00	9.00	10.00
P4	10.00	8.60	10.00	8.30	9.00	9.00	8.60	8.60	10.00	9.00	10.00	10.00
P5	9.33	8.66	6.33	6.00	4.00	6.33	6.33	5.33	9.00	8.33	6.66	8.50

Figure 5.5 shows a similar inconsistency in goal rating scores to other outcome measures. Not all facets increased above baseline, nor did they increase concordantly with either the PCI or goal counselling. 'Control' was the only rating to increase above baseline for all participants however P1, 3 and 5's scores had started to increase prior to the intervention. That said, following goal counselling 'control' scores were relatively stable rather than fluctuated. Similarly, commitment and importance steadied post-intervention, yet these facets had high baselines for most participants except P2. Therefore only P2 demonstrated pronounced change and this started prior to the PCI.

There was little consistency between participants, for example 'likelihood' decreased following the PCI for P4 yet increased for P5 and steadied for P3. There were also inconsistencies within participants, for example P3's 'knowledge' scores increased after the PCI and decreased after goal counselling. Only P2 demonstrated increases on all facets of goal processes and similarly had lower baselines on more facets. Therefore changes were not consistently related to the PCI or goal counselling.

Figure 5.6: Motivational Profile



In terms of motivational profile, participants P1, 2, 3 and 4 adaptive motivation increased steadily, but slightly, across the study period and not concordantly with either intervention. P2 was the only participant to demonstrate any pronounced increase in adaptive motivation following the PCI; however, this was in the context of a decrease in score at the previous assessment time.

Incommensurate commitment fluctuated far more for each participant than adaptive motivation. No change was associated with either intervention, rather fluctuation was observed prior to the intervention and stabilised into the follow-up phase. Only P1 and P4 showed an increase in score following the PCI however the former also had a pronounced decrease following goal counselling. This increased back to baseline but at a steady rate. P5 was most consistently 'over-committed' yet his scores were still closer to being proportionately committed. All participants were closer to proportionately committed than under- or over-committed.

### *Goal Clarity*

All articulated goals were rated on several facets of goal clarity by two independent raters. Inter-rater reliability analysis of 80% of the articulated goals was moderate ( $rs=.630$ ,  $p<0.01$ ; Dancey & Reidy, 2004).

Figure 5.7: Therapist Rated Goal Clarity Scores

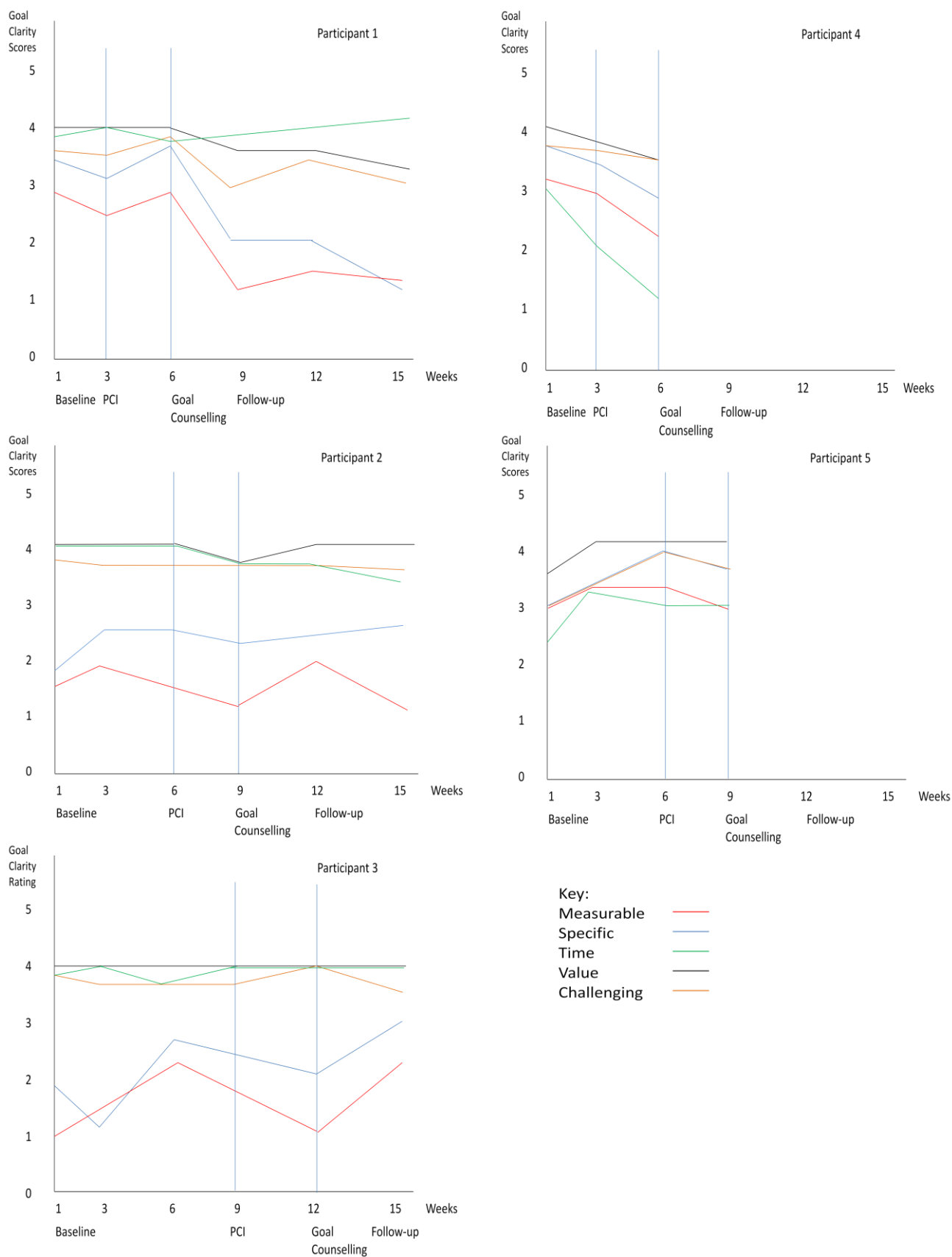




Table 5.7: Goal Clarity total scores and dysfunctional population mean and SD

										<b>Dysfunctional Population (n=28)</b>	
<b>P1</b>		<b>P2</b>		<b>P3</b>		<b>P4</b>		<b>P5</b>			
Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Mean	SD
3.50	2.35	2.98	2.80	2.85	3.20	3.50	2.50	3.10	3.64	2.94	1.71

\*Dysfunctional population taken from McMurran et al. (2013)

Figure 5.7 highlighted that goal clarity scores reflect the overall inconsistency in scores. P2 and P3 demonstrated increases on 'measurability' following goal counselling, but this was not maintained for P2. On the remaining facets P2 demonstrated steadily maintained scores, as did P5. In contrast P4's scores demonstrated a steady decrease on all facets. P1's 'measurability' and 'specific' scores decreased visibly but improved above baseline for P3. That said P3's increase sharply followed goal counselling after an equally sharp decrease preceding the PCI. The instability in scores denotes no pattern in change across participants.

Goal clarity scores showed no consistent improvements across the study period (see table 5.7). All but P3 and 5's scores decreased. No participant demonstrated clinically significant change on any facet of the goal clarity ratings however the mean goal clarity score of the dysfunctional population is high and a movement of 2 SD from this goes beyond the total score possible. The baseline scores indicate that all participants scored close to the mean of the dysfunctional population. In fact, all but P5 remained within 0.59 of the dysfunctional mean.

In terms of avoidance and approach goals, P1 was the main participant to articulate avoidance goals: 12 approach goals and 4 avoidance goals across the six assessment times. Of the 4 avoidance goals, 1 was articulated at T1, 1 at T2 and 2 at T6. P2 also articulated 12 approach goals and only 1 avoidance goal at T5. P3

articulated 11 approach goals across the study period and 1 avoidance goal at T6. P4 and 5 had incomplete data but in the short time that data were collected P4 identified a similar number of approach (5) and avoidance (4) goals. P5's pattern was similar to other participants; more approach goals (9) than avoidance (3) and the majority of the avoidance goals were articulated in the final assessment time before withdrawal from the research. Therefore, most avoidance goals were articulated in the final stages of the study period.

In summary, some participants demonstrated patterns across their individual outcome measures. P1's engagement and motivation decreased after the PCI and increased after the goal counselling whilst goal measures showed more positive change following the PCI; P2's engagement and motivation increased following the PCI but levelled or decreased following the goal counselling whilst his goal measures showed more positive change after goal counselling. P4 and P5 showed similar basic consistencies between measures in that all of P4's outcomes decreased following the PCI, and all of P5's outcomes increased following the PCI with the exception of goal clarity. P3 was the only participant to demonstrate inconsistencies across measures.

### *Follow-up Interview*

Three participants - P1, P2 and P3 - participated in follow-up interviews. Participants 4 and 5 had dropped out of either the

research or the group and therefore did not participate in formal follow-up interviews. However, P5 did agree to a short debrief interview. These data were included in the analysis, with P5's permission, as they were relevant to his perspective and personal experience of the dual intervention.

The simple thematic analysis provided 5 themes; goal responsibility, treatment relevance, treatment motivation and engagement, general benefits and general difficulties.

### *Goal Responsibility*

Participants volunteered that the additional sessions directed focus to what was personally important to them, the different means to achieving the goals and how their goals related to each other. For P5 this process was overwhelming and ultimately was his reason for withdrawal:

"You know how I said I like to bury my head in the sand; it was all too much laid out in front of me like that... I know what I need to do but just being faced with it like that...I need to focus [on the treatment] for now" [P5]

Prior to withdrawing from research, P5 recorded a therapy goal that stated an intention to manage his responsibilities, specifically completing treatment.

Other participants commented that the process empowered them to responsibility for their meaningful goals.

"I found I was thinking about my therapy goals almost every week" [P2]

The goal counselling sessions appeared particularly useful in terms of emphasising the attainability of the goals by a) acknowledging the obstacles to these goals and how to overcome them and b) breaking the goals into achievable sub-goals.

"I liked talking about the options for little things to think about rather than one big goal...it helped clear my mind" [P2]

Outlining different personal goals supported participants to recognise associations between the goals:

"I can see now how this is all linked – my goals impact on each other. So if I can sort out one issue I might make the others easier for myself too" [P3]

### *Treatment Relevance*

This theme describes the participants' recognition of the relevance treatment had in attaining their goals, and identification of themselves as an active part of the treatment process.

"It made me stop and think about treatment...comparing past and current treatment" [P1].

"It was a chance to slow down and think about the way out of my cycles...helped me see that the group was more likely to work out" [P2]

Discussion about their own goals contributed to a sense that they were being included in, and responsible for, their own treatment.

"It's a compliment to be involved in my treatment... [be asked] what I want...actually sit down and realise it and discuss options of how to do it" [P1]

### *Treatment Engagement and Motivation*

This theme describes the participants' recognition of their need for help, growing confidence going into group treatment, which included acknowledgement of group anxieties and treatment confidence.

"I'm not used to group therapy so it helped me feel easier about going" [P1]

"Made me realise how the group will help me" [P2]

“Seeing things in a way I had not before... I feel I’m in the right place” [P3]

### *General Benefits*

This theme describes the participants’ perceptions of the client-led interview, how this complemented the MBT group treatment, and that using a systematic approach to long-standing goal and goal-obstacle identification helped identify maladaptive patterns of behaviour.

“I liked the interview style – I felt I had free reign to say what I needed... [in group] I sometimes feel uncomfortable and intimidated...I could amalgamate what was being said in interview with the work in the group, like a different arm of the same therapy” [P1]

P3 highlighted that the process had encouraged reappraisal of certain past experiences. Specifically, systematic exploration of his interpersonal relationships clarified certain recurring difficulties and consideration of why these patterns existed.

“I hadn’t realised that [behaviour in relationships associated with past experiences] before – it all makes sense now, thank you!” [P3].

### *General Difficulties*

As discussed, P5's comments particularly focused on the discomfort of having personal goals, and his responsibility for these, exposed. More generally, this theme described the concerns participants had about the brevity of the dual intervention. Ultimately these comments underpinned the positive processes of the intervention.

"Only two one-to-one sessions lacked continuity...you can build a relationship with the therapist during one-to-one's and it made me realise that this is what is missing" [P1].

## **DISCUSSION**

This study aimed to explore whether the PCI and goal counselling would enhance treatment motivation and engagement in forensic outpatients with a PD. Instead the disparity between the lack of positive findings on the quantitative measures and the favourable qualitative data raised more questions; are measures insensitive to change or are participants responding desirably in the follow-up interview?

Attendance showed improvements and stabilisation towards the end of the study period, albeit unrelated to the interventions. Furthermore, although there is no consistent pattern of non-attendance within or between participants, it is worth noting that 3 participants missed session 5 (Time 2) and 3 missed session 7 (Time 3). Indeed sessions 5 to 8 had the poorest attendance with all



participants missing at least one of these sessions. From session 9, all remaining participants demonstrate more stability in their attendance, suggesting improvements could be thought about in the context of time in treatment. P4 and P5, as the two participants to withdraw from research and/or treatment, are particularly relevant in this discussion.

P4's involvement with organisations like social services reminds us that attendance is not necessarily reflective of treatment engagement. It can be affected by avoidance of negative consequences, such as breaking probation orders, or attaining positive consequences, such as removal from the child protection register. For these reasons attendance as a measure should be complemented with additional outcome measures, in this case related to motivation, engagement and goal processes.

Overall the quantitative outcome measures did not yield positive results in relation to the separate levels of the intervention as hypothesised; still some interesting observations can be made. Therapist ratings of engagement on the TER for P2, P3 and P5 increased above baseline following the PCI; however participants did not reflect these positive changes on self-rated treatment motivation. Motivation and engagement are associated but are different variables and therefore unmatched scores are perhaps unsurprising. Furthermore, Chapter 2 highlighted that therapist and participant ratings frequently disagree with each other. For some measures there are specific reasons for this, for example a measure of

therapeutic relationship found that participants perceived certain concepts differently than therapists (Agnew-Davis et al., 1998). More generally, differences may reflect an individual's perception of and confidence in their own capabilities. For example, an individual may underrate their contributions within treatment due to low self-esteem yet the therapist might rate them higher.

In terms of results of the individual facets of the measures little clarification is gained. However, it is interesting that the TER 'goal directedness' is the only facet to show improvements across participants, with the obvious exception of P4. Furthermore, these improvements appear to follow the PCI. This suggests that encouraging goal clarity impacts on goal directedness.

Clinical significance and reliable change scores on individual facets of measures could not offer clarification to the results. In the first instance, no one measure or facet yielded clinically significant or reliable change for all participants. Furthermore, those facets that did show clinical significance posed more questions than answers. Specifically, P3's clinically significant increase in the help-seeking score could denote positive recognition, acceptance and action towards help or could refer to group alliance ('I want to openly relate with others in the program'; 'I want to share some of my concerns and feelings with others'). Conversely, P4's decrease on this facet accurately denotes a psychological withdrawal from the treatment.

In terms of goal-related measures there was inconsistency in the main; however, there were promising improvements in

perceptions of goal control, knowledge and, to a lesser extent likelihood, following the PCI for P1 and goal counselling for P2 and P3. These facets are particularly important from a therapist's perspective as, in theory, these denote an improvement in cognitive processing of their goals and a change in how they are practically approaching these. That said, these improvements did not equate to an increase in AMI score.

The reasonably steady increase and stabilisation of AMI scores following goal counselling, with the exception of P2's spike in AMI score after the PCI, indicated the scores simply reached a plateau over time. Furthermore, incommensurate commitment had no real pattern in relation to adaptive motivation. Instead, P4 and P5's movement towards over-commitment to goals is indicative of poor limit setting and an unrealistic approach to goals - a recipe for goal abandonment. That said, P4 was re-recruited to the group and P5, like the remaining participants, had been in treatment for a total of 12 months at the time of writing.

Thus whilst the results are complicated, mixed and inconclusive, there are some interesting considerations in terms of differences in therapist and self-report ratings of engagement and motivation and improved cognitive processing of goals, albeit not related to any one intervention. For a goal-based intervention the latter point is particularly encouraging.

### *Effectiveness of the Motivational Intervention*

The mixed results make an overall interpretation and conclusion difficult, particularly alongside incomplete data for P4 and P5. However there is an interesting emerging pattern across the remaining participants that is worth discussing.

The engagement and motivation measures visually represented P1 as particularly responsive to the goal counselling, whilst P2 was particularly responsive to the PCI. In fact all facets on the TMQ in particular reflected this trend. Furthermore P1 showed a decrease in score following the PCI and P2 showed a decrease in score following the goal counselling. The latter point obviously highlights that changes are not maintained, but also reminds us to discuss this pattern cautiously as the two assessment points immediately follow on from each other. Therefore these changes may denote simple fluctuations in motivation and engagement during treatment.

Furthermore, these observations cannot be made for other participants due to incomplete data and mixed results (P3). However the goal-related measures add to the picture of process of change. P1 demonstrated particular improvements in goal process following the PCI whilst P2's improvements were seen following goal counselling. Again P3 showed mixed results.

The overall results for P1 and P2 suggest that participants may respond to different levels of the intervention and that the process of change is idiosyncratic to the individual. Specifically, P1's goal processes improved after the PCI but engagement and motivation particularly improved after the goal counselling whilst P2's

engagement and motivation improved after the PCI and goal processes improved after the goal counselling. Of course this pattern by no means provides a conclusion of the interventions effectiveness but rather has interesting clinical implications in terms of a client-led approach.

The PCI did not have the positive effect on participant's engagement as previously reported (McMurrin et al., 2013) and there are a number of possible reasons for this. It is a semi-structured interview and therefore the delivery will differ between facilitator; a diagnosis of PD does not manifest in a predictable, uniform way; and differences in the populations history with mental health services and what stage they of treatment they are in would impact on how engaged they already were.

There are also difficulties specific to the goal counselling session. It is a challenge to fully address 3 of the most pertinent and personally meaningful concerns outlined in the PCI in a one hour session. Therefore, adherent SMC, as a far longer and in-depth intervention, is likely to have more impact. In this sense, it is not necessarily that goal counselling was ineffective, but rather its delivery could be considered more thoroughly.

### *Effectiveness of the Measures*

Of course this discussion needs to acknowledge the appropriateness of the measures used in terms of both their psychometric robustness and sensitivity to change. Whilst the TMQ and TER are

psychometrically sound, there is an observable disruption in participant's score at time 3, attributed to a change in rater due to staff absence. This denotes poor inter-rater reliability, particularly in the context of P4's reasonably stable profile, which was scored by the same rater. In general this highlights that, whilst measures may have been evaluated as psychometrically robust with a particular population, this may not be generalised to the current population.

In the context of the positive qualitative feedback, which replicates other studies, one has to consider the likelihood the measures are insensitive to change. This may be an insensitivity to change with this population or may be a result of the definition of motivation addressed in the measures against those applied in the PCI and goal counselling. This is not necessarily uncommon as poor definition in the process of motivation is reflected in motivation measurements (Drieschner et al., 2004; Drieschner & Boomsma, 2008).

Another issue is the high baselines observed across the outcome measures. In terms of the results it restricts any significant increase in score change on these measures, but it also directs attention to the measures' susceptibility to bias due to the transparency of the measures' items. The items transparency makes them susceptible to desirable responding. Indeed in this study, participants were informed that group facilitators would not have access to the outcome measures yet participants were equally aware that the researcher was employed by the service.

Similarly, the TERs were completed by the group facilitators, and therefore may be susceptible to a bias towards the treatment's effectiveness. There is an argument for a complex interplay of naive realism, confirmation bias, illusory causation and illusion of control in a therapist's perspective of treatment effectiveness (Lilienfeld et al., 2014). Even the goal-related measures, that were not as directly related to motivation and engagement, were susceptible to bias considering outlining and rating therapy goals following a goal-based intervention is just as transparent a measure as the TMQ and TER.

Another explanation for high baselines is that the variables had already reached a ceiling, possibly due to facilitator's considered selection of participants for long-term therapy. Alternatively participants voluntarily engaging in long-term therapy are more likely to be motivated and engaged. If this is the case, then fluctuations in scores may relate more to personal challenges during the research period. Certainly fluctuations in motivation are expected during treatment and the ongoing investigations with social services, decompensation in mental health, financial and relationship difficulties seen in the current population will have contributed to problems in engagement, as outlined in the MORM (Ward et al., 2004).

Despite clear issues with the outcome measures, they do quite clearly tell P4 and P5's 'stories' of withdrawal. P4 demonstrated a decrease in goal clarity, AMI, goal ratings and importantly treatment motivation and engagement decreased. This is important as his

withdrawal from research was inherent in his withdrawal from treatment. In contrast, P5's AMI stayed the same, but goal ratings, treatment motivation and engagement increased. P5 withdrew from research so that he could focus on fully committing to treatment and changes in his outcome measure scores reflected this treatment focus. Thus there is some indication that the outcome measures are sensitive to the participant's personal circumstance.

### *Effectiveness of the Design*

A final consideration is that study design was inefficient in identifying change. Whilst the study design generally is robust, due to limited referrals to the MBT group, this particular study utilised a non-concurrent multiple baseline design - that is not all participants started baseline at the same time. This particular method is weaker than concurrent multiple baseline designs as it is unable to control for threats to internal validity as well (Morgan & Morgan, 2001). However, this study attempted to manage this issue by separating participants into two separate cohorts and all participants within each cohort started baseline at the same time. On a related note, stable baselines were not established within the structured timeframe of the study. As discussed, this is an issue in that increases in scores following either intervention are poorly contextualised in already increasing or fluctuating baselines.

In summary, this study has initiated several questions about motivation, engagement and the PCI and goal counselling despite a



lack of positive results. There are indications that certain interventions may work better with certain individuals. This notion works well with a client-led and collaborative approach, as employed by many services. Further thought could be offered to which properties of the intervention are particularly beneficial to which characteristics of individuals. This is a potential consideration for future studies. The inconsistency across measures also calls to mind the distinctions between variables of engagement and motivation, despite how associated they are. In fact one question is whether measures of motivation and engagement ever truly have construct validity considering that these variables are affected by so many external and internal factors.

## **LIMITATIONS**

Some of the study's limitations relate to the sample. The small sample size was somewhat of an inevitability when using a single site and single treatment period. Of course the study design and analysis does not require a large sample size, however the sample was smaller than anticipated at the proposal stage. Consultation with the group facilitators suggested that for 6 participants, 9 participants should be recruited because of 25% dropout. Although the attrition rate was correct, the number of anticipated referrals was not. Consequently there was a shortfall in participants. However, considering a small sample size was inevitable, perhaps the main

consideration is the homogeneity in the sample which restricts generalisation of the results.

The incomplete data sets compounded the issue of the shortfall in participants. The times at which P4 and P5 dropped out meant there was no data for these individuals to compare the separate stages of the intervention within the participants or to identify trends. For example, P5's outcome measures had started to follow a similar pattern to P1 in that he had responded particularly well to the PCI intervention yet with no further data points to contextualise this we account for the increase in score at this point.

The way the study design had to be applied was also a limitation. Multiple baseline designs typically require a stable baseline to be established before the intervention is applied. However the restricted number of assessment points, due to the time limitations, did not allow for the assessment of stability. High frequency behaviours, such as attendance, allow for a better assessment of stability yet this does not translate to measurements of motivation and engagement. Clinical significance and, where possible reliable change, of pre- post-intervention data and visual analysis attempted to account for this limitation however this is certainly something for future studies to consider.

In terms of clinical significance and reliable change, the absence of normative populations for the measures used means that the clinical significance calculation used simply demonstrates a move away from the dysfunctional population but cannot reflect how much

closer the participants were to a normal population. Furthermore, the TMQ dysfunctional population means used represented alcohol and drug-dependent adults in substance abuse programmes. Furthermore, existing studies that have used the TMQ with offenders or people with PD have scored the measure differently. Therefore the dysfunctional population used is not necessarily representative of the current study's population.

There were practical difficulties in following the assessment timeline strictly. Although participants were offered the opportunity to complete the measures either by post, in person or over the phone, the measures could not always be collected on the set date although they were often collected within the week. Participant absences or failure to bring the completed measures to the group most often accounted for missed assessment times. Therefore, when outcome measures were completed it was more likely to occur when the participant was present at the group, and thus less likely to be in crisis or at least experiencing the situation less acutely.

Certainly the measures themselves are not without their limitations. In terms of the measures of motivation and engagement, their transparency in what they are measuring is high and response bias must be considered. Furthermore, the investment of the facilitators in both the treatment and potentially the study forces consideration of success bias.

A clear limitation is the fact that the Doctoral candidate was the researcher, interviewer and facilitator of measures. Therefore not

only did participants recognise the professional relationship between the researcher and their group facilitators, but also knew that their results were being analysed by the facilitator of their interviews. Of course this enhances the possibility of desirable responding even before bias in the outcome measures is considered.

Finally, the use of two purpose-designed goal-related measures has not been evaluated for reliability or validity, which may impact on the reliability of the results of this study. Although this was the only option in the absence of existing evaluated goal-related measures it is not ideal and warrant careful consideration of these measures results.

## **RESEARCH IMPLICATIONS**

Put simply, there is a need to further explore the value of the PCI. The discrepancy between quantitative and qualitative outcomes urges particular consideration of the outcome measures used alongside the PCI. However it also draws attention to the quality of measures of motivation and engagement and their use with certain populations, in this instance with offenders with PD. All researchers must consider the extent to which their outcome measures are appropriate for their population as well as their topic. However, in the light that engagement with PD is encouraged by the NICE guidelines (2009) one would anticipate this area of research to develop with this

population and robust, relevant measures of motivation and engagement need to be considered.

## **CLINICAL IMPLICATIONS**

This study recognises the difficulties engaging offenders and people with PD and, in relation to the study's limitations, these difficulties do not simply account for treatment attrition but can affect even the initial referral. This, and the fact that the PCI is a useful means of outlining goals relevant to treatment, conceptually places the PCI as a pre-therapy strategy. Certainly from a facilitator's viewpoint, the PCI tapped into goals that were valuable, and the systematic consideration of these structured the participants' thinking. In this sense it is clear why participants reported feeling listened to, valued and empowered from this one session. Clinically this has advantages in developing the therapeutic relationship, ensuring a collaborative approach, and placing the responsibility with the individual. Furthermore, it provides basis to the development of a more personally meaningful treatment plan. An extension of this implication has been discussed in Chapter 4: augmenting the GLM with the PCI.

An interesting, and unexpected, clinical implication to come out of the study is the suggestion that participants respond differently to the intervention levels. This is by no means an unfamiliar discussion in clinical literature; rather client- and needs-led treatment is the

preferred approach, as highlighted in a care programme approach. That said the predominant use of MI, discussed in Chapter 2, presents a more one size fits all approach. This study suggests finer tuning of an engagement strategy, or at least initiates awareness of idiosyncratic responsivity to engagement strategies and flexible adjustment of strategies to address this.

## **CONCLUSION**

In terms of the results there is no conclusive evidence for the PCI and goal counselling as an effective motivational intervention, yet participant feedback indicates that it has value. The positive feedback and idiosyncratic responses to particular levels of the intervention suggest value evaluating a refined version of the intervention to identify what works for whom.

## **CHAPTER SIX**

### **General Discussion**

## **DISCUSSION**

This thesis offers a thought-provoking story about treatment engagement, and its development, in a forensic PD population. In the first instance, it is clear that a focus on this area was necessary in light of the gap in literature for this population. Chapter 2 demonstrates not only a dearth of diverse, evaluated engagement strategies with PD populations but also a principal focus on MI over any other strategy. In fact, the considerable focus on engagement with offenders is understandable in light of the explored adverse consequences of non-completion of OBPs (McMurran & Theodosi, 2007). However, this is also true for PD (McMurran et al., 2010). Any lack of investigation with PD populations may be understood in the context of the relatively recent development of PD services.

Although the quality and variation in outcome measures, methodology and results meant there was no one clear effective engagement strategy for offenders and/or people with PD, it is at least clear that engagement strategies are successful with people with PD. That is not to say that people with PD are any more responsive to engagement strategies than other populations, but rather that there is value on focusing on this population in their own right. This is supported in the understanding that the same goal-based approach is effective with PD but not with offenders. Of course this is likely due to amendments to the goal-based interview, considering this thesis highlights similarities between the populations.



Thus people with PD appear to respond well to engagement strategies, if only psycho-education and goal-based strategies.

Chapter 3 further supports both the specific challenges in working with PD and how clinicians may be managing these. In line with the TReMoPeD (Tetley et al., 2012), the case study depicted a complex formulation of internal and external factors impacting on treatment readiness and engagement. It cannot be said that the case study's previous lack of engagement in services was due to lack of recognition and response to readiness factors. However, her engagement in and completion of the DBT-related programme was a clear improvement on previous treatment attempts.

It is worth noting that the engagement strategies embedded in DBT are diverse and client-led. They range from structured motivational interviewing strategies, such as cost-benefit analysis, to treatment retention strategies, such as follow-up phone calls or letters. As discussed in Chapter 2, such breadth in the clinician's toolkit of engagement strategies demonstrates positive progress in this field, but also introduces a more dynamic approach to complementary use of strategies, as endorsed in DBT.

Of course DBT was designed specifically for BPD and its relevant treatment aims for patients is a reasonable hook into treatment alone. This makes it difficult to understand the impact of the early engagement strategies embedded in the programme. Rather Chapter 2 and 3 together infer that a dearth of studies evaluating engagement strategies may be because the whole

treatment, engagement strategies included, is evaluated rather than engagement strategies in isolation.

Therefore it is important that this thesis responds to an absence of engagement strategies for PD, and does so using an intervention well grounded in theory. The TCC uses a clearly defined expression of goals as a motivational construct and understands the goal processes at a human level; this is an approach that makes the PCI idiosyncratic and accessible as well as relevant to other theories and models. The similarities between the PCI/TCC and the GLM are exciting considering the GLM has a limited empirical evidence-base and the PCI may be useful in developing this.

The novel hierarchical model presented in Chapter 4 therefore adds to the GLM's robustness but also offers a means of applying and evaluating the model through the PCI. The latter is important considering Chapter 4 highlights the PCI as a psychometrically sound means of measuring motivation to change, as was originally intended, but with scope for additional application. This thesis mainly focuses on the PCI as a brief motivational intervention.

The few studies to evaluate the PCI as an intervention reported weak results with offenders and positive outcomes with PD. This disparity may be associated with different versions of the PCI, particularly in light of weaker psychometric properties of the offender versions. This emphasises the importance of psychometric evaluation of different versions of measures and with different populations rather than generalising the work on the PCI. On this note, the

information about the psychometric properties of the PCI outside of this thesis is based upon studies using both the PCI and its predecessor: the Motivational Structure Questionnaire (Klinger & Cox, 1986). This limitation restricts, but by no means eliminates, confidence in the measure.

Chapter 5 has gone some way to developing the clinical picture of the PCI. Interestingly the findings were more reflective of Sellen, Gobbett and Campbell (2013) and Theodosi's (2006) work; there is limited support for the PCI as an enhancer of motivation and engagement but positive qualitative feedback. Considering the study used the same measure as McMurran et al.'s (2013) study this perhaps raises more questions than it answers. One key point raised by the early chapters is that engagement strategies play a role in getting someone to treatment but that the treatment itself has its own role in the individual's motivation. Thus the differences in treatment between the studies could be one reason for different results.

Indeed, Chapter 3 described a range of engagement strategies, including goal-based ones, in a DBT-informed case study and established good attendance and clinical outcomes. In light of this, it is also worth considering whether a range of complementary engagement strategies is more effective than a standalone goal-based strategy.

The repeated outcomes in the current study design potentially provide more in-depth and useful information about motivation. In

this study fluctuations present a complicated and confusing picture. Chapter 2 discusses the process of change described by Drieschner, Lammers and van der Staak (2004) as treatment motivation leading to treatment engagement and resulting in better clinical outcomes. However, the early stages of this process were not identified in the current study. Instead each person demonstrated different changes in motivation and engagement to either the PCI or goal counselling. This redirects us to the need to tailor interventions to the individual certainly and also reminds us that motivation and engagement fluctuates during treatment.

In terms of the outcome measures discussed throughout, a key issue is bias. Self-reported treatment motivation measures can impact on a respondent's motivation simply by drawing attention to it. Similarly, therapist-ratings can be susceptible to success bias and therefore both researchers and facilitators need to think carefully about how vulnerable the measures they use are to such biases. This too is relevant to response bias. For example, the items on the Treatment Motivation Questionnaire (TMQ; Ryan & Plant, 1995) specifically focus on aspects of motivation, such as participation, commitment and choice in attending. The transparency of measures of motivation is widespread and to the author's knowledge, the PCI is the only measure of motivation to indirectly address the construct. This is a consideration throughout this thesis.

Overall, this study understands that the PCI, in its variation and diverse application, responds to some clear gaps in engagement

literature. The dearth in evaluated engagement strategies with PD is worrying in light of the non-completion rates of this population and the adverse consequences of this. However the PCI's adaption to offenders, and even to offenders with PD, is a chance to progress this. The implications for practice are summarised below. However these have to be considered with the caveat that psychometric properties of the PCI variants, and particularly the offender variants, could be more closely evaluated.

### *Implications for Practice*

The delivery of the PCI is accessible to staff of different levels of expertise due to its standardised interview schedule, which Chambless and Hollon (1998) highlight as a facilitator of effective treatment. As a measure of motivation to change, the PCI is certainly useful in extending the clinician's tool kit in pre-treatment assessments and goal-planning in the early treatment stages.

The discussion of personal goals and the opportunity to relate the pursuit of these goals to treatment has been qualitatively identified as useful in empowering the client and adds weight to the proposal of the PCI as a motivational intervention. Furthermore, as a motivational intervention the PCI potentially develops clinical practice beyond MI. This is a tentative proposal in light of a lack of quantitative support for the PCI as enhancing motivation. Yet in terms of the participant's idiosyncratic responses to the different

levels of the interventions, a flexible and client-led approach to engagement strategies appears necessary.

Finally, this thesis presents a new development for the PCI: an augmentation to the GLM. Its relevance with this model presents an opportunity to detail a goal matrix pertinent to the individual and the GLM primary goods, and to structure care-planning within this framework.

### *Implications for Research*

In exploring how to enhance engagement with offenders with PD this thesis has discussed much wider issues in relation to how treatment engagement and motivation is defined, outcome measures and the process of treatment engagement. The difficulties in separating out processes of engagement and motivation have been seriously considered in this thesis and it is emphasised that researchers need to be clear in the definitions and outcome measures used. This will contribute to robust research and clarity across the field. Conversely, issues with definition are likely to contribute to fallibility in outcome measures and Chapter 2 identifies the need to understand whether measures of motivation are measuring what they claim to be.

Finally, there is an exciting opportunity to empirically evaluate both the GLM using the PCI and to explore the wider use of the model and measure together. Whilst it has been discussed as a sound means of evaluating the GLM, this currently exists in theory only and is subject to further research.

### *Implications for risk management*

The PCI's potential contribution to desistance from problematic behaviours, including offending behaviour, has been discussed. This consideration particularly stems from the PCI's links with the GLM. Evidence suggesting treatments targeting the GLM primary goods, and therefore PCI life areas, were associated with reduced recidivism has been presented. Furthermore comprehending the client's goals and particularly what they prioritise, helps clinician's devise an effective and personal risk management plan alongside the client.

### *Implications for Policy*

From a policy perspective, this thesis emphasises the value individual life areas such as housing, employment, socio-economic security and relationships have in establishing a healthy individual and, thereby, society. In doing this, it calls to attention the disruption that society and existing policy, such as austerity policies, may have on these areas (psychagainstausteristy, 2015). McGrath, Griffin and Mundy (2015) highlight the psychological costs of austerity, including changes to legal aid, social housing and local government budgets.

It is beyond the remit of this thesis to critique certain policies, however it is recommended that policy be informed by methodologically sound research findings, the likes of which highlight that disruption to life areas such as housing, employment and relationships predict recidivism (Farrall & Maruna, 2004). Thus

consideration of how policy is implemented needs to be considered in order to manage or even avoid disruption to certain life areas.

### *Limitations of the Thesis*

As mentioned, the results of this thesis are tentative and it is important to bear in mind the limitations of each chapter. Chapter 2 discusses the potential bias in excluding foreign language papers. It also raised concerns about excluding co-morbid diagnoses with PD considering the high prevalence of dual diagnosis in this population. Whilst there were clear reasons for this decision, including time, financial constraints and an attempt at clarity in the studies; these may have biased the review findings.

Chapter 3, the case study, details the obvious issues with study design in terms of lack of comparator. Instead, it used multiple outcome measures over multiple assessment times to detail process of change, as in Chapter 5. The evaluation of an individual within a group was a significant limitation because the individual's formulation could not direct the treatment but rather a non-adherent DBT-based programme, with less evidence-base, was applied. There are potential ethical issues to this; however, Soler et al.'s (2009) evidence for skills-based groups in retention and clinical outcomes counterbalanced this limitation.

There is an argument that both Chapter 3 and 5 could have used a longer follow-up period to fully understand the process of change and the longevity of the outcomes. Similarly, the fallibility



and potential bias in measures of motivation and engagement have already been discussed extensively, but Chapter 5 has further limitations in terms of outcomes as the goal-related outcome measures are not validated. Indeed there is an absence of such measures.

The author co-ordinated the research, interviews and measures. In this sense desirable responding is an issue, yet this is further compounded by the participant's knowledge that the researcher was a colleague of the group facilitators. In Doctoral theses this is somewhat inevitable, as are the limitations to time and resources.

## **CONCLUSION**

Enhancing motivation in a forensic PD population is an important area of investigation. This thesis extends our knowledge of the PCI, both in terms of its properties, potential application as a measure of motivation to change, and experimentally as a motivational intervention. Such investigation has suggested value in further exploring a client-led approach to engagement interventions to understand what works for whom, thereby enhancing positive outcomes. Furthermore, this thesis has initiated considerable thought to the similarities of the GLM, TCC and PCI and frames this within a novel hierarchical model, thereby offering a valuable starting point to using the PCI as a means of evaluating the GLM.

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## APPENDICES

### Appendix A

Searches were based on the following search strategy:

- 1) Exp personality disorders/
- 2) (personality adj disorder\*)
- 3) Or/1-2
- 4) Exp offenders/
- 5) Offender\*
- 6) Prisoner\*
- 7) Probation\*
- 8) Inmate\*
- 9) Or/4-8
- 10) Exp engagement/
- 11) Exp motivation/
- 12) (early adj2 engag\* strateg\*)
- 13) (engag\* adj strateg\*)
- 14) (measure\* adj engag\*)
- 15) (engag\* adj technique\*)
- 16) (motivat\* adj strateg\*)
- 17) (motivat\* adj technique\*)
- 18) Or 10-17
- 19) (client adj participat\*)
- 20) (patient adj participat\*)
- 21) (offender adj participat\*)
- 22) (prisoner adj participat\*)
- 23) (treatment adj engag\*)
- 24) (intervention adj engag\*)
- 25) Drop?out\*
- 26) Non?complet\*
- 27) Attend\*
- 28) (treatment adj attend?nce)
- 29) (treatment adj retention)
- 30) Or 19-29
- 31) 3 and 9 and 18 and 30

## Appendix B

### Quality Assessment

	Yes	Possibly	No	Unclear	Comments
<b>Screening or Threshold</b>					
Has the diagnosis been made using a structured tool					
Have exclusions been justified					
<b>Sampling and selection bias</b>					
Have participants been allocated appropriately					
Control for confounding variables					
Acceptable recruitment process					
<i>Risk of selection bias:</i>					
<b>Measurement/performance bias exposure</b>					
Has the strategy been facilitated by the an experienced therapist					
Has the same person worked with all participants					
Where was the engagement strategy facilitated					
Has the routine therapy been described					
<i>Risk of measurement/performance bias:</i>					
<b>Measurement bias outcome</b>					
Are the measures reliable and valid					
Has the same person implemented the measures each time					
Has the routine therapy facilitators administered the measures					
Does the measurement fit the intervention					

Risk of outcome measurement bias:					
<b>Attrition bias</b>					
Have dropouts been recorded and discussed					
Have dropouts been included in the data					
<i>Risk of attrition bias:</i>					
<b>Other issues</b>					
Is the analysis appropriate					
Was the length of the study long enough					
was the follow up period long enough					
<i>Overall quality:</i>					

## Appendix C

### Data Extraction

Date of extraction			
Author(s)			
Paper Title			
Source			
Study Design	Allocation (blindness)	Duration	Funding
Notes			
Population	Intervention	Comparator	Outcome

Population	
Diagnosis	
Number	
Age	
Sex	
Ethnicity	
History	
Included	
Excluded	

Intervention	
Recruitment	
Strategy	
Duration	
Theoretical Underpinnings	

Comparator	
Group	
Method	
Justification	

Outcomes		
What outcome (able to use and how it was measured)	Short term	
	Medium term	
	Long term	
What outcomes (unable to		



use/why)	
Measurement used at baseline	
Measurement used post-intervention	
Who conducted measurement	
Frequency of the measurement	
Time between measurements	
Was the tool validated	

<b>Analysis</b>	
Statistical tests and results	
Dropout rates	
Tests account for confounding variables	
Was missing data dealt with	

### **Risk of Bias Table**

<b>Item</b>	<b>Judgement</b>	<b>Description</b>
Adequate sequence generation?	Yes / Unclear / No	
Incomplete outcome data addressed?	Yes / Unclear / No	
Free of selective reporting?	Yes / Unclear / No	
Free of other bias?	Yes / Unclear / No	

## Appendix D

### List of Unobtainable Studies

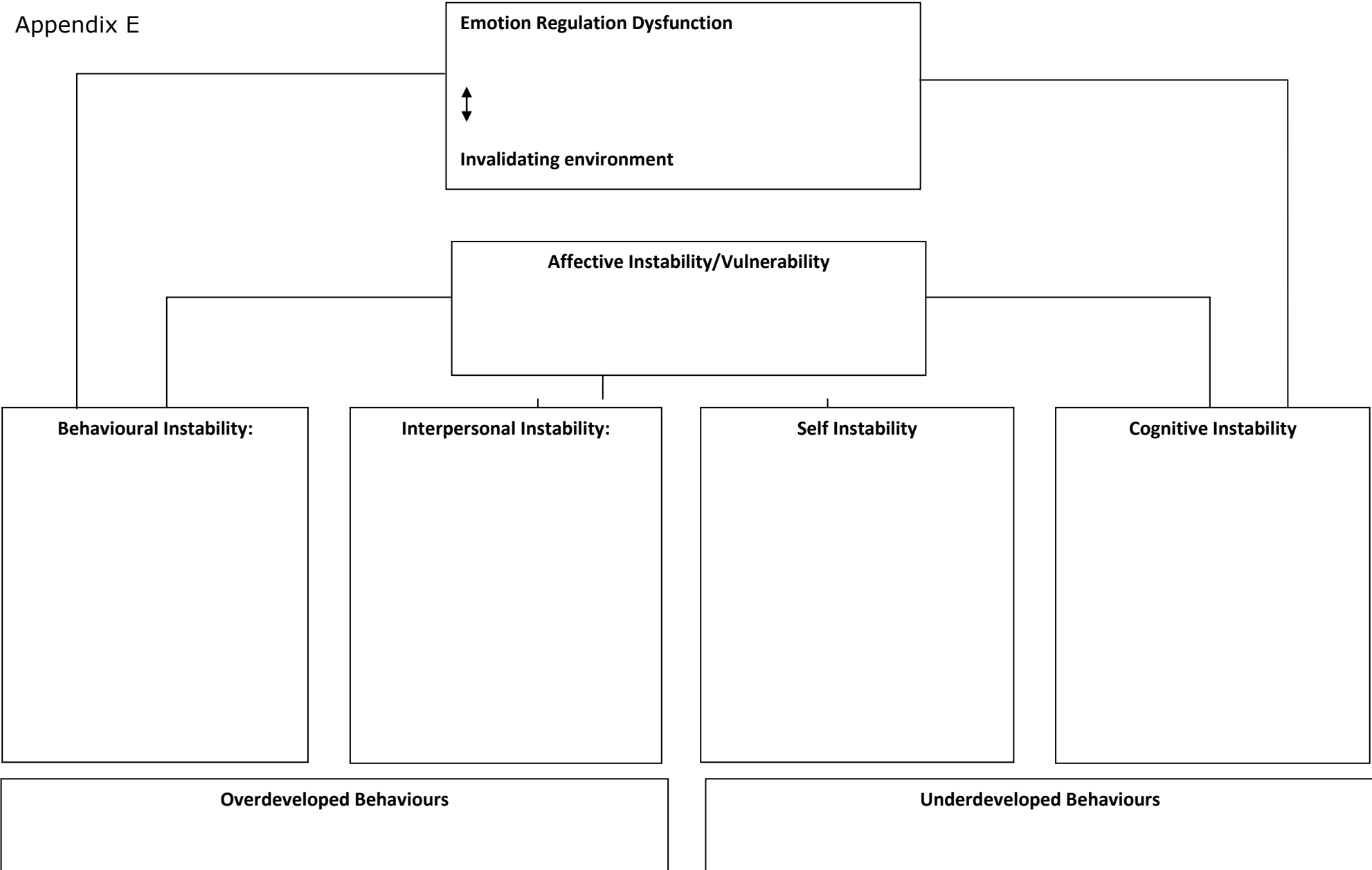
Kennerley, R. J. (1999) The Ability of a Motivational Pre-Group Session to Enhance Readiness to Change in Men who Have Engaged in Domestic Violence (Unpublished Doctoral Dissertation) University of South Carolina: South Carolina.

Musser, P. H., Semiatin, J. N., Taft, C. T., & Murphy, C. M. (2008). Motivational interviewing as a pregroup intervention for partner-violent men. *Violence and Victims*, 23(5), 539-557.

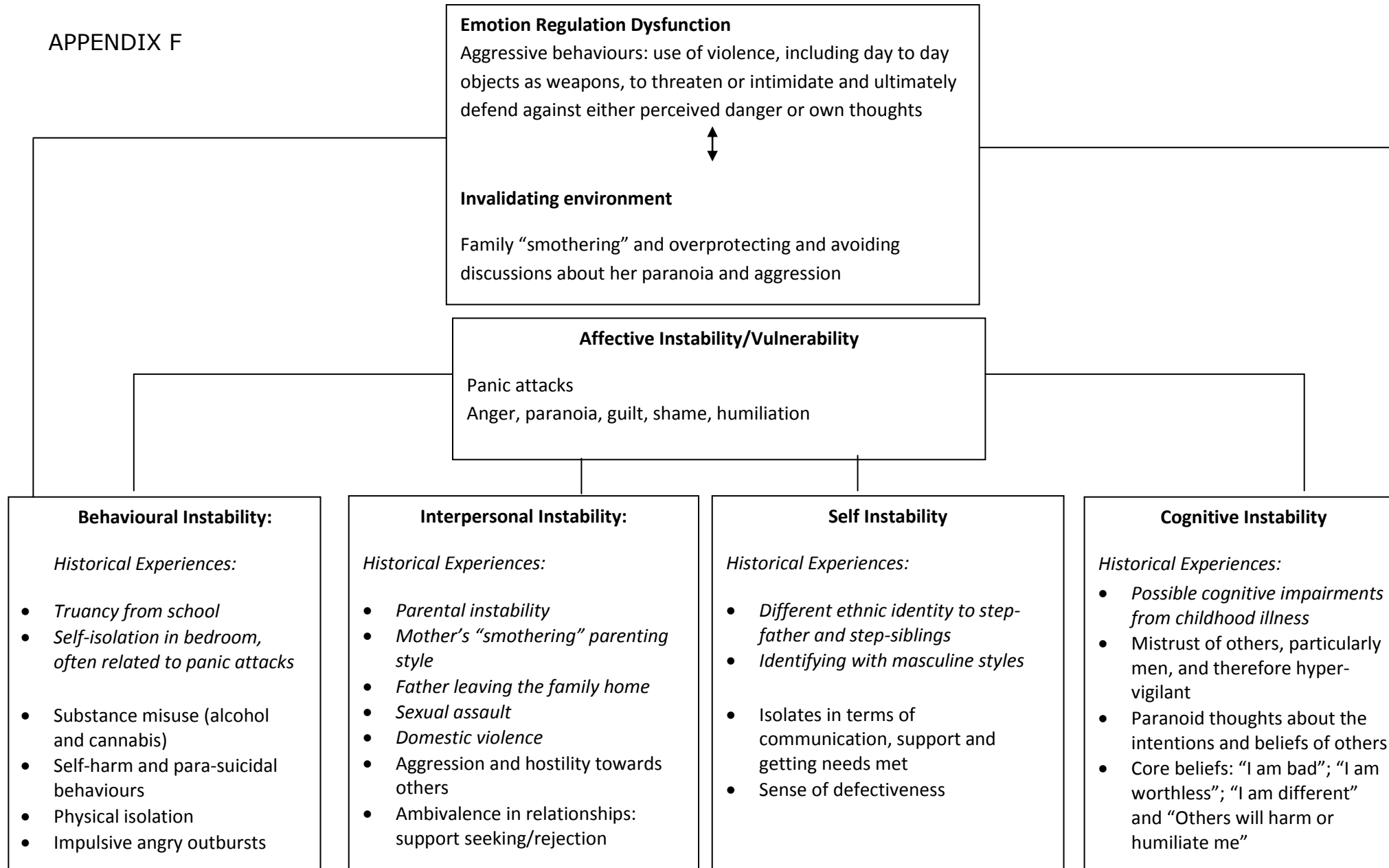
Prescott, D. S. & Ross, M. (2009). Using Motivational Interviewing with Sexual Abusers in Group Treatment. In Prescott, D. S. (Ed.) *Building Motivation for Change in Sexual Offenders* (pp.184-205). Vermont:Safer Society Publishers.

Yates, P. (2009) Using the Good Lives Model to Motivate Sexual Offenders to Participate in Treatment. In Prescott, D. S. (Ed.) *Building Motivation for Change in Sexual Offenders* (pp.184-205). Vermont:Safer Society Publishers.

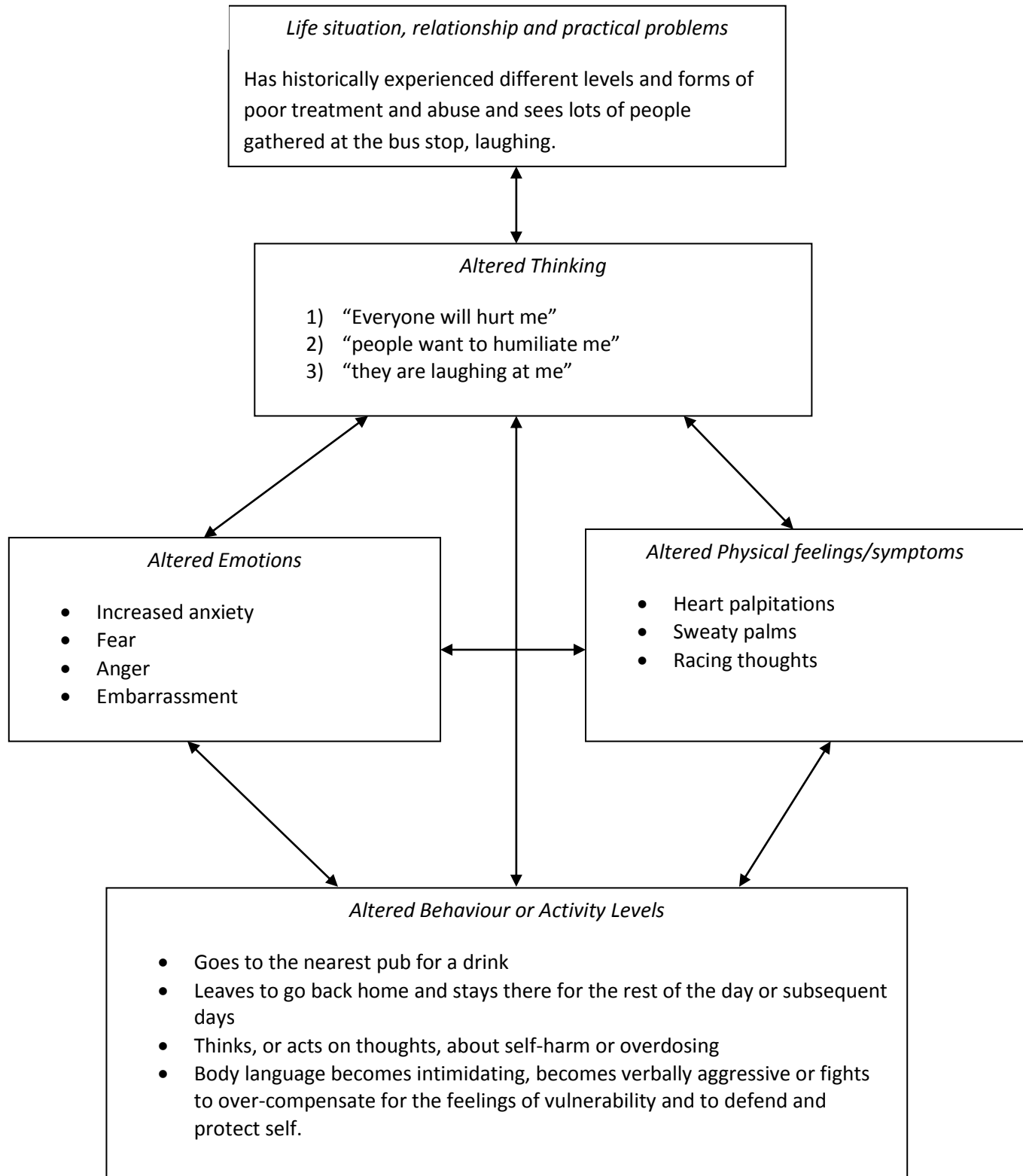
Appendix E



## APPENDIX F



## APPENDIX G



# APPENDIX H

Dialectical Behaviour Therapy Skills Diary Card										Date ____/____/____											
Day	Urge To:			Feelings:						Substance Use								Behaviours			
	Use	Suicide	Self-harm	Pain	Sad	Fear	Shame	Anger	Fear	Illicit		Alcohol		Prescription meds		Over the counter		Self-harm	Lied	Joy	Skills
	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5	#	?	Y/N		Y/N		0-7		Y/N	#	0-5	0-7*
Fri																					
Sat																					
Sun																					
Mon																					
Tues																					
Wed																					
Thurs																					

Feelings about the session	*Used Skills				
	0 = Not thought about or used 1 = Thought about, not used, didn't want to 2 = Thought about, not used, wanted to 3 = Tried but couldn't use them 4 = Tried, could do them but they didn't help 5 = Tried, could use them, helped 6 = Didn't try, used them, didn't help 7 = Didn't try, used them, helped				
	Urge to: (0-5)	Before session	After session	Belief in control of: (0-5)	
	Quit Therapy			Emotions:	
	Use			Behaviours:	
	Harm			Thoughts:	

**My Crisis Plan**

***This crisis plan is designed to help you help yourself and to remember where to turn for help during a crisis. If you feel suicidal or have urges to hurt yourself, or feel out of control, you can look at it. Keep it up to date if you and your contacts change contact details.***

Name: JENNY

Date:

Ways to contact me are:

Telephone Number	
Other telephone numbers	SISTER-IN-LAW
Email	
Address	

**In an Emergency**

If I have attempted suicide or are concerned that my self-harm is at a life threatening level I should contact:

Local Accident and Emergency Department	Princess Royal University Hospital 01689 863486 Queen Elizabeth Hospital 020 8836 4360/1
My GP	
Out of hours phone number	

**Crisis Helplines:**

The Samaritans:	020 8301 1010 <a href="mailto:jo@samaritans.org">jo@samaritans.org</a>
Drugs helpline:	Text 82111 <a href="http://www.talktofrank.com">www.talktofrank.com</a>
Stepping Stones:	020 8466 2500
Green Parks House:	01689 880000
Bexley Crisis Line:	<b>0845 608 0525</b>
Others:	

**Mental Health Services I am seeing who have offered support:**

Name: CARE CO-ORDINATOR

Address:

Phone Number:

**Friends and Family who support me**

Name: SISTER-IN-LAW

Phone Number:

Name: MOTHER

Phone Number:

Name:

Phone Number:

**Things that help me in a Crisis**

*Write in this section distress tolerance tools that help you. E.g. listening to music, essential oils, soothing tea, favourite book, favourite cushion, red pens to draw with instead of self-harm, photographs, Wise mind ACCEPTS, Mindfulness*

Crisis Situation, Trigger or Time	Tools that have helped me
FEELING STRESSED (HEARING VOICES OR PARANOIA)	GOING TO THE GYM LISTENTING TO MUSIC
WORRYING ABOUT THINGS SUCH AS FUTURE	GOING FOR A WALK WITH MY DOG A BATH SPEAKING TO OTHERS
FAMILY PROBLEMS OR STRESSES	COOKING AND LISTENING TO MUSIC COPING BOX



## **End of Group Relapse Prevention “Therapy Blueprint”**

### **1. The most valuable ideas I’ve learned in therapy are:**

Understanding my own feelings and recognising what they are – it has let me focus on positive feelings and things for myself. In doing this I have also realised the value of the support of the services I have around me.

### **2. The most valuable techniques I’ve learned in therapy are:**

The distress tolerance skills, such as self soothing and distraction techniques. I now have an understanding of what I can do immediately in a crisis which was important to me.

### **3. My most important goals for the next 6 months to 12 months are:**

I feel more confident about getting into voluntary work which is what I have wanted to do for a while. I’ll be working with my OT to do this. I am also working with an alcohol rehabilitation service and am anxious about this – I really want the support but it is sometimes overwhelming and difficult because it is mixed. My goal is to complete and succeed in this.

### **4. The events and situations which are likely to be difficult are:**

At the moment, it is the mixed groups at the alcohol rehabilitation service. I’m also continuing to find my home environment difficult due to the memories of my ex.

### **5. The things I can do in these situations are:**

Listening to music or going for a walk and taking some time out helps. When I’m in a group and can’t really do these things then I have coping thoughts that I use. If I feel really paranoid then I prefer doing something more active, like going to the gym.

### **6. In order to maintain my achievements, I can do the following:**

I keep going back over my folder and even going back to re-do some of the homework. I know how to communicate what is going on for me to others, and know who I can turn to. I also have more people

around me who can help me with my skills by reminding me to use the skills I've learnt.

## APPENDIX K

### Borderline Evaluation of Severity over Time Raw Data

	Pre	April	May	June	Post
<b>Symptom Severity</b>	52	47	46	38	34

### Five Facet Mindfulness Questionnaire

	Pre		April		May		June		Post	
	Raw	Mean	Raw	Mean	Raw	Mean	Raw	Mean	Raw	Mean
<b>Observe</b>	22	2.75	25	3.125	28	3.5	22	2.75	21	2.625
<b>Describe</b>	24	3	21	2.625	24	2.75	24	2.75	25	3.125
<b>Act with Awareness</b>	21	2.625	17	2.125	28.5	2.438	22	1.857	24	3
<b>Non-judgement</b>	17	2.125	21	2.625	31	2.125	26	2.75	22	2.75
<b>Non-reaction</b>	18	2.571	18	2.571	20	2.857	18	2.571	22	3.143

### Clinical Outcome Routine Evaluation - Outcome Measures

	Pre-group			Post-group		
<b>Item</b>	<b>Raw score</b>	<b>Range</b>	<b>Mean scores</b>	<b>Raw score</b>	<b>Range</b>	<b>Mean scores</b>
Well Being (4 items)	11	0-16	2.75	9	0-16	2.25
Problems or Symptoms (12 items)	40	0-48	3.33	31	0-48	2.58
Functioning (12 items)	32	0-48	2.67	26	0-48	2.17

Risk (6 items)	6	0-24	1.00	2	0-24	0.33
All	89	0-136	2.62	68	0-136	2.00

**Social Functioning  
Questionnaire**

Pre-group	Post-group
11	9

**Weekly Diaries**

Negative Emotions										
Pain	27	10	8	11	12	11	20	12	10	10
Sad	32	24	22	8	15	8	19	14	10	12
shame	6	3	4	4	4	8	13	5	10	4
Anger	33	33	28	23	28	21	27	27	25	25
Fear	20	25	17	13	7	5	15	8	14	6
Urges										
Use	0	0	0	0	0	4	12	0	0	0
Suicide	6	7	8	7	4	10	14	7	13	0
Self-harm	14	13	8	8	4	7	6	9	8	2
Behaviours										
Alcohol	62	58	48	47	27	38	47	31	47	43

Illicit substance	0	0	0	0	0	1	2	0	0	0
Self Harm	0	1	0	0	0	1	3	0	1	0
Lies	3	1	2	2	1	7	15	0	2	0
<b>Positive emotion</b>										
	21	17	22	23	22	15	2	21	10	15

---

**PCI-OA Additional Life Areas**

---

My offending behaviour

Current living arrangements

---

---

**PACI-O Life Areas**

---

Past, current and future living arrangements

Close personal relationships

Physical and mental health issues

Recreation

Self-changes and personal improvements with anger and/or violence

Employment, training and financial situation

---

---

**PCI-OA Additional Rating Scales**

---

How will prison help?	Will the experience of being in prison help things to turn out the way I want them to?
How will prison interfere?	Will the experience of being in prison interfere with things turning out the way I want them to?
How will offending help?	Will offending help things to turn out the way I want them to?
How will offending interfere?	Will offending interfere with things turning out the way I want them to?

---

---

**PACI-O Rating Scales**

---

Importance	How important is it to me for things to turn out the way I want?
Likelihood	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?
Knowledge	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?
Commitment	How committed do I feel to make things turn out the way I want?
Prison	Overall how will the experience of being here in prison affect you being able to achieve this goal?
Reoffending	Overall if you were to offend in the future how would this affect you achieving this goal?
<hr/> <b>PCI Short Version with Personality Disorder</b> <hr/>	
Importance	How important is it to me for things to turn out the way I want?
Likelihood	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?
Knowledge	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?
Commitment	How committed do I feel to make things turn out the way I want?
How will my personality help?	Will my personality help things to turn out the way I want them to?
How will my personality interfere?	Will my personality interfere with things turning out the way I want them to?

## Appendix M

### THERAPY GOALS

Please use the space below to tell us about your main goals for therapy, that is what you hope and expect to achieve during the MBT programme. It is really helpful if you can be as specific as possible and we then ask that you rate these goals.

The rating scales are between 0 (the least) and 10 (the most) , and rate how you feel about the goal and how you will feel if things do turn out the way you want, that is if you achieve this goal.

Therapy Goal 1:	
How important is this to you	
How likely is it this will happen	
How much control do you have	
Do you know what to do	
How committed do you feel	
How much happiness will you get	

Therapy Goal 2:	
How important is this to you	
How likely is it this will happen	
How much control do you have	
Do you know what to do	
How committed do you feel	
How much happiness will you get	

Therapy Goal 3:	
How important is this to you	
How likely is it this will happen	
How much control do you have	
Do you know what to do	
Do you know what to do	
How much happiness will you get	



## Appendix N

### Goal-Rating Scale

This checklist is to be used to rate the goal of each problem solving exercise. The ratings refer to the researcher's opinions of the goal. For each domain, please rate on a scale of 0 to 4, where 0 is poor and 4 is very good.

#### 1. Attainability

*Clear and specific:* Goals which are explicitly stated allow individuals to set personal targets and performance standards. A combination of setting specific targets and monitoring performance influences motivation. Research shows that motivation is greater when a goal is specific rather than vague.

0 =	Goal is unclear and vague. Does not address specific issues.	Your rating =
4 =	Goal is well defined and clear. Addresses a specific issue.	

*Measurable:* A goal which allows for personal performance standards/targets can be evaluated in relation to outcome. Performance monitoring influences motivation. Once clients perceive some success from goals, this improves their self-efficacy and confidence in their own skills and an ability to reach goals, which increases their motivation.

0 =	Unable to identify performance targets. No clear identifiable endpoint.	Your rating =
4 =	Has easily identifiable performance targets. Clear identifiable endpoint.	

*Challenging:* Motivation is sustained when a goal is challenging but not unattainable. Easy and very difficult goals are less motivating than challenging goals.

0 =	A goal is too easy with no effort required to reach goal.	Your rating =
4 =	Goal is appropriately challenging.	

#### 2. Value

Persistence in goal striving is related to the value the individual places on the goal outcome.

0 =	Goal has no value. The goal outcome is not considered worthwhile.	Your rating =
4 =	Goal is considered to be of a high value. Goal outcome is worthwhile.	

#### 3. Is it a long-term or short-term goal?

Short-term goals in addition to the long-term goals increase motivation to tasks. Short-term goals provide clear markers of progress and can be easily measured, increasing motivation to obtain the longer-term goal.

0 =	The goal can be attained in few days (or less).	Your rating =
4 =	Goal is stretched out in the future. It is an ongoing goal.	

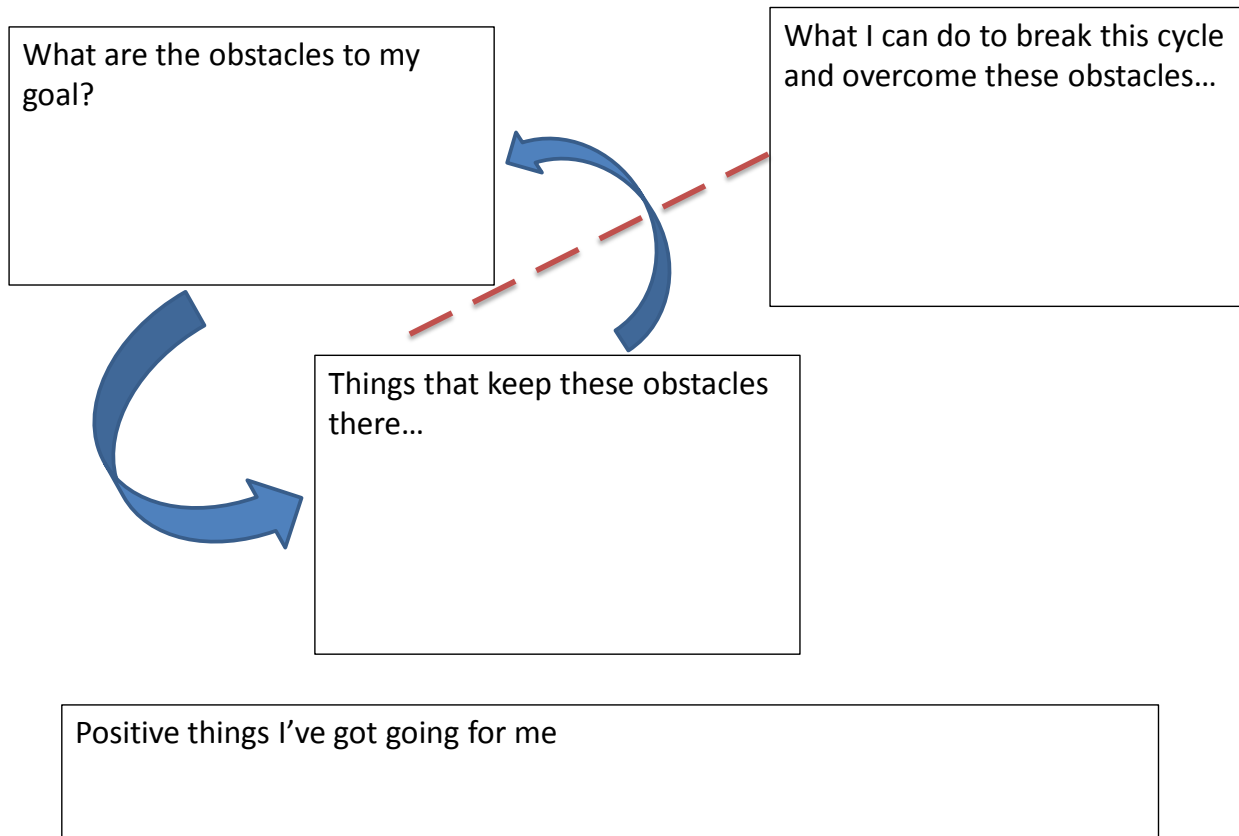
#### 4. Please indicate whether it is an approach goal or an avoidance goal?

Approach goals are more likely to be carried out because they are intrinsically rewarding (rewarding in their own right) and are less likely to cause negative feelings such as poor health or a negative outlook.

Goal Type	Definition	✓ / ✗
<b>Avoidance Goal</b>	A goal to get rid of, prevent, or avoid something that the individual does not want.	
<b>Approach Goal</b>	A goal to get, obtain, or accomplish something positive that the individual wants to achieve.	

## Appendix O

### How to Achieve to my Personal Goals



22 April 2014

Professor Mary McMurran  
Professor of Personality Disorder Research  
University of Nottingham  
Room B03, Yang Fujia Building  
Triumph Road  
Nottingham  
NG8 1BB

Dear Professor McMurran

Study title:	An Evaluation of the Effects of Motivational Intervention on Treatment Engagement in Personality Disordered Patients.
REC reference:	14/EM/0181
Protocol number:	14036
IRAS project ID:	143592

Thank you for your email of 21<sup>st</sup> April 2014, responding to the Proportionate Review Sub-Committee's request for changes to the documentation for the above study.

The revised documentation has been reviewed and approved by the sub-committee.

We plan to publish your research summary wording for the above study on the NRES website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the Co-ordinator Miss Rebecca Morledge, [NRESCommittee.EastMidlands-Northampton@nhs.net](mailto:NRESCommittee.EastMidlands-Northampton@nhs.net).

#### Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

#### Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

## Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

*Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.*

*Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.*

*Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.*

*For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.*

*Sponsors are not required to notify the Committee of approvals from host organisations.*

## Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database within 6 weeks of recruitment of the first participant (for medical device studies, within the timeline determined by the current registration and publication trees).

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non clinical trials this is not currently mandatory.

If a sponsor wishes to contest the need for registration they should contact Catherine Blewett ([catherineblewett@nhs.net](mailto:catherineblewett@nhs.net)), the HRA does not, however, expect exceptions to be made. Guidance on where to register is provided within IRAS.

You should notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. The REC will acknowledge receipt and provide a final list of the approved documentation for the study, which can be made available to host organisations to facilitate their permission for the study. Failure to provide the final versions to the REC may cause delay in obtaining permissions.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

## Approved documents

The documents reviewed and approved by the Committee are:

Document	Version	Date
REC application	143592/593627/1/295	10 April 2014
Evidence of Insurance or Indemnity	Henderson Corporate	31 July 2013
Investigator CV		
Letter from Sponsor	The University of Nottingham	09 April 2014
Other: CV - Kate Wyse		
Other: Personal Aspirations and Concerns Inventory	1	27 April 2009
Participant Consent Form	Draft Version 2.0/Final Version 1.0	22 April 2014
Participant Information Sheet	Draft Version 2.0/Final Version 1.0	22 April 2014
Protocol	1.0	03 April 2014
Questionnaire: Rating Scales	1	26 June 2009
Questionnaire: Core Outcome Measure		
Questionnaire: Therapy Goals	1	21 March 2014
Questionnaire: Treatment Motivation Questionnaire		
Response to Request for Further Information		22 April 2014

## Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

## After ethical review

### Reporting requirements

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

### Feedback

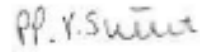
You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at <http://www.hra.nhs.uk/hra-training/>

With the Committee's best wishes for the success of this project.

Yours sincerely



**Ken Willis**  
Chair

Email: NRESCommittee.EastMidlands-Northampton@nhs.net

Enclosures: *"After ethical review – guidance for researchers"*

Copy to: *Mr Paul Cartledge*  
*Mr Anthony Davis, Oxleas NHS Foundation Trust*  
*Kate Wyse*

**ANNUAL PROGRESS REPORT TO MAIN RESEARCH ETHICS COMMITTEE**  
**(For all studies except clinical trials of investigational medicinal products)**

To be completed in typescript and submitted to the main REC by the Chief Investigator. For questions with Yes/No options please indicate answer in bold type.

**1. Details of Chief Investigator**



Name:	Prof. Mary McMurran
Address:	University of Nottingham Room B03, Yang Fujia Building Triumph Road Nottingham NG8 1BB
Telephone:	
E-mail:	<a href="mailto:Mary.mcmurran@nottingham.ac.uk">Mary.mcmurran@nottingham.ac.uk</a>
Fax:	

## 2. Details of study

Full title of study:	<b>An Evaluation of the Effects of Motivational Intervention on Treatment Engagement in Personality Disordered Patients</b>
Name of main REC:	East Midlands-Northampton
REC reference number:	<b>14/EM/0181</b>
Date of favourable ethical opinion:	22 April 2014
Sponsor:	Angela.shone@nottingham.ac.uk

## 3. Commencement and termination dates

Has the study started?	<b>Yes / No</b>
If yes, what was the actual start date?	28 August 2014
If no, what are the reasons for the study not commencing?  What is the expected start date?	
Has the study finished?  <i>If yes, complete and submit "Declaration of end of study" form, available at <a href="http://www.nres.npsa.nhs.uk/applications/after-ethical-review/endofstudy/">http://www.nres.npsa.nhs.uk/applications/after-ethical-review/endofstudy/</a></i>	<b>Yes / No</b>

If no, what is the expected completion date?	Mid July
If you expect the study to overrun the planned completion date this should be notified to the main REC for information.	
If you do not expect the study to be completed, give reason(s)	

#### 4. Site information

Do you plan to increase the total number of sites proposed for the study?	Yes / No
If yes, how many sites do you plan to recruit?	

#### 5. Recruitment of participants

*In this section, "participants" includes those who will not be approached but whose samples/data will be studied.*

Number of participants recruited:	Proposed in original application:9 Actual number recruited to date:5
Number of participants completing trial:	Actual number completed to date:3
Number of withdrawals from study to date due to:  (a) withdrawal of consent: 1 (b) loss to follow-up: 0 (c) death (where not the primary outcome):0  Total study withdrawals: 1	
*Number of treatment failures to date (prior to reaching primary outcome) due to:  (a) adverse events: (b) lack of efficacy:  Total treatment failures:  * <i>Applies to studies involving clinical treatment only</i>	
Have there been any serious difficulties in recruiting participants?	Yes
If Yes, give details:	There were fewer referrals for the standard treatment group than originally anticipated

Do you plan to increase the planned recruitment of participants into the study?	
<i>Any increase in planned recruitment should be notified to the main REC as a substantial amendment for ethical review.</i>	<b>No</b>

## 6. Safety of participants

Have there been any related and unexpected serious adverse events (SAEs) in this study?	<b>No</b>
Have these SAEs been notified to the Committee?  <i>If no, please submit details with this report and give reasons for late notification.</i>	<b>Not applicable</b>
Have any concerns arisen about the safety of participants in this study?  <i>If yes, give details and say how the concerns have been addressed.</i>	<b>No</b>

## 7. Amendments

Have any substantial amendments been made to the trial during the year?	<b>No</b>
If yes, please give the date and amendment number for each substantial amendment made.	N.B. there was a change of sponsor representative which was deemed a minor amendment


## 8. Serious breaches of the protocol

Have any serious breaches of the protocol occurred during the year?	<b>No</b>
<i>If Yes, please enclose a report of any serious breaches not already notified to the REC.</i>	<b>No</b>

## 9. Other issues

Are there any other developments in the study that you wish to report to the Committee?	<b>No</b>
Are there any ethical issues on which further advice is required?	<b>No</b>
<i>If yes to either, please attach separate statement with details.</i>	

## 10. Declaration

Signature of Chief Investigator:	
Print name:	Mary McMurran
Date of submission:	31/5/15

PARTICIPANT INFORMATION SHEET  
**Evaluation of Goal Focused Motivation Interventions**  
**Draft Version 2.0 / Final Version 1.0: 22/4/2014**  
**REC Reference: 14/EM/0181**

Names of Investigators: Kate Wyse  
Mary McMurran

You have been invited to take part in a study of goal based motivation work as an addition to treatment. Before you decide whether to take part 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 staff, friends and relatives if you wish to. Ask us if there is anything that is not clear or if you would like more information. After reading this you have time to decide whether you wish to take part or not. If you decide to take part you may keep this leaflet. Thank you for reading this.

### **Background**

Research indicates that it can be difficult for individuals diagnosed with personality disorder to engage with services and in treatment. It has been found that a focus on personal goals has an effect on motivation and engagement in treatment so that the positive outcomes from therapy are more often achieved. We have therefore developed an additional goal based intervention which addresses your own goals, the obstacles to them and how to overcome these, to complement your group therapy. This work will evaluate how well the additional intervention works, determining its ability to increase motivation and engagement.

### **What does the study involve?**

If you agree to take part, then the researcher will collect information from you about your well-being, thoughts of therapy, including therapy goals, and your personal goals. This will be done using short questionnaires and through one-to-one sessions, at your convenience either whilst you are at the William Morris Centre or over the phone. You will already be asked to complete one of the questionnaires, related to your well-being, for your group therapy so this will be accessed rather than you completing this twice.

We will ask you to meet with the researcher every 3 weeks over the course of 15 weeks to complete the questionnaires on how motivated you are to engage in treatment and your therapy goals. These questionnaires are completed more than once because we are interested in how responses change over a period of time. You will also be asked to attend a one-to-one session about things you want to achieve or change within different areas of your life and a further session to explore the obstacles to goals and what can help overcome these. These additional sessions will be conducted at the William Morris Centre and can follow your group if this is more convenient, or we can arrange another day of your preference.

We will also ask staff to rate you on two things – how engaged you are in the treatment and the expression of your therapy goals. This will give us another perspective of your engagement levels.

You will be invited to a final interview at the end of the study as an opportunity to share your thoughts of the additional interventions.

Overall, the researcher will work with you over a period of about 18 weeks.

### **Why have you been chosen?**

You have been invited to participate in this study because you have been referred for the Mentalisation Based Therapy and so will be attending the William Morris Centre for the next few months.

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

It is up to you to decide whether or not to take part, and you should feel free to say no. Your participation in the Mentalisation Based Therapy will not be affected in any way if you decide 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 and later change your mind, you are still free to withdraw at any time and without giving a reason. If you decide to withdraw, your group therapy will not be affected in any way.

### **What do I have to do?**

If you're interested in taking part, you just need to inform a member of staff, who will pass on your name to the researcher. The researcher will then contact you directly to offer you a meeting to ask any questions that you might have about the research before you make a final decision about taking part or not.

If you do decide to take part, the researcher will inform you of the timing for your first questionnaire session.

### Taking part

**One-to-one sessions** will involve talking to the researcher, who will use a goal focused form to explore your personal goals, that is what you want to achieve or what you have concerns about and how you feel about these goals. A subsequent session will prioritise the goals and look at how to achieve some of the most valued; what the obstacles are, how to overcome these obstacles. The follow up interview at the end of the study will offer you an opportunity to share your experience of the interventions and whether you felt it was useful or made a difference to you. You can say as much or as little as you feel comfortable with.

**Questionnaires** will involve filling in short questionnaires. Someone will help you fill them in if you want. The questionnaires will ask you about your how motivated to engage in treatment you are, your well-being (only at the start and end of the study) and therapy goals. By consenting to participate in this study you are agreeing to the researcher accessing the Clinical

Outcome Routine Evaluation-Outcome Measure (well-being) questionnaire you complete as part of your therapy.

### **What are the possible disadvantages and risks of taking part?**

There are no disadvantages of taking part. There are no significant risks, although it is possible that you may become upset thinking about your goals and how to overcome obstacles to these. However, you will not be asked to focus on things that upset you, and in the event that you do become upset you are free to leave the session. You would also be given the chance to speak about your distress with a member of staff.

### **What are the possible benefits of taking part?**

We are hopeful that the goal focused work will support your progress in the Mentalisation Based Therapy, and that the research will help us evaluate whether the additional sessions are valuable in supporting others to access therapy.

### **What if something goes wrong? Who can I complain to?**

In case you have a complaint about anything to do with the research you should first approach the lead investigator Kate Wyse. If you need to speak to someone who is independent of the project you should contact the Patient Advice and Liaison Service (PALs). Contact details for these people are at the end of this information sheet.

### **Will my taking part in this study be kept confidential?**

We will follow ethical and legal practice and all information about you will be kept confidential. All information which is collected about you during the course of the study not only be assigned a unique code to maintain anonymity, but will be kept **strictly confidential**, stored on a password protected computer, under password protected folders. There is no need to collect any personal data such as contact details, date of birth, or ethnicity for this study.

The data collected for the research will only be looked at by authorised persons from the University of Nottingham and Oxleas NHS Foundation Trust. Data may also be looked at by authorised people to check that the study is being carried out correctly. Everyone who is authorised to examine the data has a duty of maintaining your confidentiality.

All other data (study data) will be kept securely for 7 years. After this time your data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your confidentiality. Only direct members of the research team will have access to your personal data.

In the process of writing up this research, direct quotes from interviews may be used but will always be anonymised so it won't be possible to identify you or any other participants when reading the reports.

Although what you say in the interviews is confidential, should you disclose anything to us which we think puts you or anyone else at any risk, we are obliged to report this to the appropriate persons.

### **What will happen if I don't want to carry on with the research?**

Your participation is voluntary and you are free to withdraw at any time, without giving any reason, and without your treatment or legal rights being affected. If you withdraw then the information collected up to that point cannot be erased and this information may still be used in the project analysis.

### **What will happen to the results of the study?**

The study findings may be written up as articles for publication in relevant journals. It will also be submitted for the qualification of Doctorate in Forensic Psychology. No identifying information will be included in any publication; it will **not** be possible to identify any participants by reading the report or publications.

### **Who is organising the study?**

The study is being organised by the University of Nottingham.

### **Who has reviewed the study?**

This study has been reviewed and approved by the NHS Research Ethics Committee Northampton.

### **Contact for Further Information**

If you have any questions about the research, please feel free to contact Kate Wyse, at the below address:

Kate Wyse  
Trainee Forensic Psychologist  
William Morris Centre  
Bracton Lane  
Off Leyton Cross Road  
DA2 7AF  
Telephone: 01322297175  
Email: [kate.wyse@oxleas.nhs.uk](mailto:kate.wyse@oxleas.nhs.uk)

or

Patient Advice and Liaison Service  
Telephone 0800 917 7159.  
E-mail [pals@oxleas.nhs.uk](mailto:pals@oxleas.nhs.uk)

**Thank you**



**CONSENT FORM**  
**Draft Version 2.0 / Final version 1.0: 22/04/2014**

**Title of Study: Goal Focused Interventions with Mentalisation Based Therapy**

**REC ref: 14/EM/0181**

**Name of Researcher:** Kate Wyse

**Name of Participant:**

**Please date box**

1. I confirm that I have read and understand the information sheet draft version 2.0 final version 1.0 dated 22/4/2014 for the above study and have had the opportunity to ask questions. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my treatment or legal rights being affected. I understand that should I withdraw then the anonymous information collected so far may still be used in the research. ☐
3. I understand that data collected in the study may be looked at by authorised individuals from the University of Nottingham the research group and regulatory authorities where it is relevant to my taking part in this study. to these records and to collect, store, analyse and publish information obtained from my participation in this study. I understand that my personal details will be kept confidential. ☐
4. I understand that the Personal Concerns Inventory and therapy goals will be kept by the researcher. I understand that interviews (including follow-up interviews) will be recorded and that anonymous quotes from the interviews may be used in the write-up of the study. ☐
5. I understand that if I disclose anything to the researcher which she thinks puts me or anyone else at any risk, it will be reported to the appropriate persons. ☐
6. I agree to take part in the above study. ☐

\_\_\_\_\_  
Participant Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name of Researcher

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

1 copy for the project notes, 1 copy for the participant

## Appendix S

P1						
	T1	T2	T3	T4	T5	T6
TMQ: external	3.5	4	2.8	4.25	4.25	4
TMQ: internal	6.4	6.3	6.4	6.6	5.9	6.66
TMQ: help seek	6.1	5.5	4.5	5.8	6	6.16
TMQ: confidence	4.8	5.6	3.4	3.8	5	4.6
TER Overall	3.56	3.08	2.73	3.05	3.83	3.4
TER Participation	5	3	5	4.67	5	5
TER Sacrifices for treatment	3	3	2.7	3	4	4
TER Openness	3.5	3	2.5	3.5	4	4
TER Effort to change	3.5	3.5	2.5	2	3.5	3
TER Goal directedness	3.5	3	2	2.5	4	3
TER Efforts to improve SE	3	3	1.3	2.5	3	3
TER Use of therapy sessions	3.6	3.3	3.3	3.33	4	3
TER Between sessions	3	2	2	3	3	2
TER Global engagement	4	4	3	3	4	4
Goal rating Ave goal importance	9	9.33	9.66	9.66	9.33	9.33
Goal rating Ave goal likelihood	6.33	7.33	7.33	8.66	7.33	7
Goal rating Ave goal control	4.66	5.33	8.33	8	7.33	7.33
Goal rating Ave goal knowledge	5.33	4.66	7	7.33	6	7.66
Goal rating Ave goal commitment	9	8.66	9.33	8.33	8.33	9.66
Goal rating Ave goal happiness	10	9.66	9.33	9.33	9	9.66

P1	Rater 1						Rater 2						Average					
Goal clarity Specific	3.4	2.7	3.5	1.8	1.8	0.8	3.33	2.3	3.66	2	2.33	1	3.4	3.15	3.3	1.6	1.3	0.6
Goal clarity Measurable	2.9	2.25	2.6	1.1	1.48	1.15	3	2	3.66	1.6	2.66	2	2.75	2.5	1.6	0.6	0.3	0.3
Goal Clarity Challenging	3.5	3.5	3.8	2.8	3.5	2.7	4	4	4	3	3.66	3	3	3	3.6	2.6	3.3	2.3
Goal clarity Value	4	4	4	3.5	3.6	3.1	4	4	4	4	3.66	3.66	4	4	4	3	3.6	2.6
Goal clarity Time	3.7	4	3.7	3.8	3.8	4	3.33	4	3.33	3.66	3.66	4	4	4	4	4	4	4

P2						
	T1	T2	T3	T4	T5	T6
TMQ: external	4.25	2.5	4	4.25	3.5	4
TMQ: internal	6.3	5.6	5.7	6.64	6.5	4.9
TMQ: help seek	4.5	5	4.8	5.67	5.2	4.6
TMQ: confidence	3.4	3	3.6	4.6	4.2	3.5
TER Overall	3.74	4	2.84	4.1	4.16	4.1
TER Participation	5	5	4.3	5	5	5
TER Sacrifices for treatment	4	4	2.5	4	4	4
TER Openness	3.5	3	3.5	3.5	4	3.5
TER Effort to change	3.5	4	2.5	4	4	4
TER Goal directedness	3	3.5	2.5	4	4	4
TER Efforts to improve SE	3	3.5	3.25	3.5	3.5	3.5
TER Use of therapy sessions	3.7	4	3	4	4	4
TER Between sessions	3	4	1	4	4	4

TER Global engagement	5	5	3	5	5	5
rating Ave goal importance	7.66	6.5	10	9	9	8
Goal rating Ave goal likelihood	4.33	4.5	5.5	6	7	7
Goal rating Ave goal control		4.5	5.5	6	7	7
Goal rating Ave goal knowledge	5.33	3	5	5	7.33	6
Goal rating Ave goal commitment	6.66	5	8.5	9	9	9
Goal rating Ave goal happiness	8.33	8	9.5	10	10	10

P2	Rater 1						Rater 2						Average					
Goal clarity Specific	1.7	2.5	2.5	2.25	2.45	2.5	2.33	2.5	1	2	2.3	1	1	2.5	4	2.5	2.6	4
Goal clarity Measurable	1.5	1.8	1.5	1	2	1	2	2.5	1	1	2	1	1	1	2	1	2	1
Goal Clarity Challenging	3.7	3.5	3.5	3.5	3.6	3.5	4	4	4	4	3.66	3	3.3	3	3	3	3.6	4
Goal clarity Value	4	4	4	3.5	4	4	4	4	4	4	4	4	4	4	4	3	4	4
Goal clarity Time	4	4	4	3.5	3.6	3	4	4	4	4	3.66	3	4	4	4	3	3.6	3

P3						
	T1	T2	T3	T4	T5	T6
TMQ: external	1	1.75	1.7	2	1	1.75
TMQ: internal	6.9	6.9	6.3	6.2	6.7	7
TMQ: help seek	4.8	6.3	6.3	6.3	6.3	6.16
TMQ: confidence	5	4.5	5.2	5.8	3.5	5.25
TER Overall	3.23	3.62	2.9	3.5	3.92	3.61
TER Participation	5	5	5	4.67	5	5
TER Sacrifices for treatment	4.3	3.3	3	4	4	4
TER Openness	3	3	3.5	3	4	3.5
TER Effort to change	3.5	3.5	2.5	4	4	3
TER Goal directedness	3.5	3.5	2.5	3	3.5	4
TER Efforts to improve SE	3	3	2.3	3	3.5	3
TER Use of therapy sessions	3.3	3.3	2.3	3.33	3.3	3
TER Between sessions	2	3	2	2	3	3
TER Global engagement	5	5	3	5	5	4
Goal rating Ave goal importance	10	10	10	10	10	10
Goal rating Ave goal likelihood	5.5	7	5.5	5.5	7	7
Goal rating Ave goal control	3	5	6	3.5	4.66	5
Goal rating Ave goal knowledge	4.5	5	5.5	6	7.6	6
Goal rating Ave goal commitment	10	10	10	10	10	10
Goal rating Ave goal happiness	9	10	10	10	10	10

P3	Rater 1						Rater 2						Average					
Goal clarity Specific	1.75	1	2.5	2	1.7	2.75	1	2	3	2	2.33	2.5	2.5	0	2	2	1	3
Goal clarity Measurable	1	1.5	2	1.5	1	2	1.5	3	3	2.5	2	3	0.5	0	1	0.5	0	1
Goal Clarity Challenging	3.75	3.5	3.5	3.5	4	3.25	4	4	4	4	4	3.5	3.5	3	3	3	4	3
Goal clarity Value	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Goal clarity Time	3.75	4	3.5	4	4	4	3.5	4	3	4	4	4	4	4	4	4	4	4

P4						
	T1	T2	T3	T4	T5	T6
TMQ: external	4.5	4.5	4			
TMQ: internal	6.6	6.7	6			
TMQ: help seek	6.8	7	5.16			
TMQ: confidence	6.5	6.8	5.6			
TER Overall	3.5	3.29	3.24	3.3	0.3	0
TER Participation	4.5	4.3	4.3	2.5	1	0
TER Sacrifices for treatment	3.6	3.6	3.6	3.5	1	0
TER Openness	4	4	4	2	0	0
TER Effort to change	3.5	3.5	3	2.5	0	0
TER Goal directedness	3	3	3	2.4	0	0
TER Efforts to improve SE	3.25	3.25	3.25	2.3	0	0

TER Use of therapy sessions	3	3	3	2	0	0
TER Between sessions	2	2	2	2	0	0
TER Global engagement	3	3	3	2	1	0
Goal rating Ave goal importance	10	10	8.6			
Goal rating Ave goal likelihood	10	10	8.3			
Goal rating Ave goal control	9	8.33	9			
Goal rating Ave goal knowledge	8.6	8.6	8.6			
Goal rating Ave goal commitment	10	10	9			
Goal rating Ave goal happiness	10	10	10			

P4	Rater 1						Rater 2						Average					
Goal clarity Specific	3.6	3.3	2.6				3	3.7	2				3.3	3.5	2.3			
Goal clarity Measurable	3.3	3	2.3				2.7	2.3	1.3				3	2.65	1.8			
Goal Clarity Challenging	3.6	3.6	3.3				3.3	3.7	4.3				3.45	3.65	3.8			
Goal clarity Value	4	3.6	3.3				3.7	5	4.7				3.85	4.3	4			
Goal clarity Time	3	1.6	1				3.3	3	1				3.15	2.3	1			
P5																		
							T1	T2	T3	T4	T5	T6						
TMQ: external							3.5	3.5	3.5	4	3							
TMQ: internal							6.1	5.3	5.8	6.5	5.5							
TMQ: help seek							3.2	3.2	2.3	3.5	4.3							
TMQ: confidence							2.6	2.8	1.6	4	3.1							
TER Overall							3.08	3.08	2.66	3.07	3.2							

TER Participation	5	5	5	2.67	2.67	
TER Sacrifices for treatment	3.5	3.5	2.7	5	4	
TER Openness	2	2	2.5	2	2.5	
TER Effort to change	4	4	2.5	3	3.5	
TER Goal directedness	2.5	2.5	2.5	2.5	3	
TER Efforts to improve SE	2.5	2.5	1.75	3.5	3	
TER Use of therapy sessions	2.3	2.3	2	3	3.33	
TER Between sessions	2	2	2	3	3	
TER Global engagement	4	4	3	3	4	
Goal rating Ave goal importance	9.33	8.33	9	9.33	8.66	
Goal rating Ave goal likelihood	6.33	6.33	5	6.5	6	
Goal rating Ave goal control	4	3.66	5.5	5.17	6.33	
Goal rating Ave goal knowledge	6.33	4	4.66	4.33	5.33	
Goal rating Ave goal commitment	9	8.66	8	8.66	8.33	
Goal rating Ave goal happiness	0.66	4.33	6.66	4.83	8.5	

P5	Rater 1						Rater 2					Average						
Goal clarity Specific	3	3.6	4	3.3	3.6		4	4.3	3.3	4	3.7		3.5	3.95	3.65	3.65	3.65	
Goal clarity Measurable	3	3.6	3.6	2.6	3.6		4.3	3.6	3.7	2.7	4.3		3.65	3.6	3.65	2.65	3.95	
Goal Clarity Challenging	3.6	4	4	3.3	4		4.7	3.7	4.7	3.7	4		4.15	3.85	4.35	3.5	4	
Goal clarity Value	3.6	4	4	4	4		4.7	5	4.7	5	5		4.15	4.5	4.35	4.5	4.5	
Goal clarity Time	2.3	3	2.6	2.6	3		3.7	3	3	1.3	3.3		3	3	2.8	1.95	3.15	



## Appendix T

### Correlations

		Rater1	Rater2
Rater1	Pearson Correlation	1	.619**
	Sig. (2-tailed)		.000
	N	90	90
Rater2	Pearson Correlation	.619**	1
	Sig. (2-tailed)	.000	
	N	90	90

\*\* . Correlation is significant at the 0.01 level (2-tailed).

## Appendix U

TER subscale pre- and post scores

	Participation		Sacrifice		Openness		Effort to change		Goal directedness		Efforts to improve SE		Use of therapy sessions		Between session use of treatment		Global engagement	
Ppt	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
P1	5.00	5.00	3.00	4.00	3.00	4.00	3.50	3.00	3.50	4.00	3.00	3.00	3.60	3.00	3.00	2.00	4.00	4.00
P2	5.00	5.00	4.00	4.00	3.50	3.50	3.00	3.50	3.00	4.00	3.00	3.50	3.70	4.00	3.00	4.00	5.00	5.00
P3	5.00	5.00	4.30	4.00	3.00	3.50	3.50	3.00	3.50	4.00	3.00	3.00	2.00	3.00	5.00	4.00	5.00	4.00
P4	4.50	1.00	3.60	1.00	4.00	.00	3.50	.00	3.00	.00	2.50	0.00	2.30	0.00	2.00	0.00	3.00	1.00
P5	5.00	2.67	3.50	4.00	2.00	2.50	4.00	3.50	2.50	3.00	3.25	3.00	3.00	3.33	2.00	3.00	4.00	4.00

Dysfunctional population (n=328)	Participation <sup>1</sup>	Sacrifice	Openness	Effort to change	Goal directedness	Efforts to improve SE <sup>2</sup>	Use of therapy sessions	Between session use of treatment	Global engagement
Mean	4.34	3.29	3.29	3.09	3.14	3.12	3.10	2.93	3.00
SD	0.92	0.86	0.94	0.91	0.86	0.87	0.85	1.07	0.99

\*Dysfunctional population taken from Drieschner & Boomsma (2008)

<sup>1</sup>n=314

<sup>2</sup>n=315