

**Clinicians' Perspectives on the Treatment of  
Psychopathic and Borderline Personality Disorders:  
Identifying Current Strategies to Better Inform Future  
Treatment Directions**

**by**

**Ashley Anne Murray**

M.A. (Clinical Psychology), University of Texas (El Paso), 2009  
B.A. (Hons.), University of Montana, 2006

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**Degree:** Doctor of Philosophy  
**Title:** *Clinicians' Perspectives on the Treatment of Psychopathic and Borderline Personality Disorders: Identifying Current Strategies to Better Inform Future Treatment Directions*  
**Examining Committee:** Chair: Robert Ley  
Associate Professor

---

**Dr. Stephen D. Hart**  
Senior Supervisor  
Professor

---

**Dr. Alexander Chapman**  
Supervisor  
Associate Professor

---

**Dr. P. Randall Kropp**  
Supervisor  
Adjunct Professor

---

**Dr. Johann Brink**  
Internal Examiner  
Adjunct Professor, School of Criminology

---

**Dr. Randall T. Salekin**  
External Examiner  
Professor, Department of Psychology  
University of Alabama

**Date Defended/Approved:** July 31, 2014

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## **Abstract**

Psychopathic personality disorder (PPD) is associated with increased risk for adverse outcomes, including perpetration of violent crime. Yet no empirically supported treatments exist which specifically target symptoms of PPD and the literature on the treatment of PPD is fraught with methodological inadequacies. Pessimism reigns supreme regarding the treatment of PPD. Given the absence of a sound research base, the present study was designed to survey mental health professionals (MHPs) to determine their attitudes and experiences with respect to the treatment of PPD. Survey data from 150 MHPs who answered questions about the treatment of PPD were compared to data from 132 MHPs who answered similar questions about the treatment of BPD. MHPs were asked about their training and attitudes toward PPD or BPD, and their experiences treating a specific patient with PPD or BPD. Results indicated that MHPs had significantly more negative attitudes toward treating PPD than BPD, and these negative attitudes were associated with perceptions of poorer treatment outcomes for both PPD and BPD patients. Despite these nuances, 77% of MHPs reported some improvement in their patient with PPD's symptomatology, compared to 90% of MHPs in the BPD group. Reported symptom improvement of specific PPD and BPD patients was not associated with MHP's characteristics or the characteristics of patients, with one exception (e.g., comorbid acute mental illness was associated with reports of more negative treatment outcome for BPD patients). Reported improvement in the symptomatology of specific PPD and BPD patients was associated significantly with characteristics of the treatment (e.g., more time spent in treatment), and with reports of therapy interfering behaviours by patients (although the pattern of associations was different for PPD and BPD patients; e.g., manipulative behaviour was significantly associated with reports of poor treatment outcome for PPD patients, but not for BPD patients). Overall, the findings suggest that extreme clinical pessimism regarding the treatment of PPD may be unwarranted and that, with appropriate treatment, symptoms of PPD may improve. The implications of the findings for the development, implementation, and evaluation of treatments for PPD are discussed.

**Keywords:** Psychopathic personality disorder; borderline personality disorder; treatment of personality disorders; clinician attitudes

## **Dedication**

I dedicate this work to my family and friends who have supported me throughout this process.

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# **Chapter 1.**

## **Introduction**

The treatment of personality disorders has been a difficult and often debated field of psychological study and progress. Challenges to the treatment of personality disorders include widespread pessimism regarding the ability to manage and treat personality disorders, the heterogeneity of personality disordered patients, and a lack of uniformity regarding the selection of appropriate treatment approaches across mental health professionals (MHPs; Blackburn, 1988; Karpman, 1948; Lilienfeld, 1994; Newhill, Vaughn, & DeLisi, 2010; Skeem, Poythress, Edens, Lilienfeld, & Cale, 2003; Sanislow et al., 2002). Additionally, discrepancies exist across treatment studies regarding the outcome measures selected to be indicative of treatment success (e.g., reduction of a certain symptom or severity of symptoms, scores on a particular screening measure, social functioning improvements, criminal recidivism).

Though some progress has been made, particularly regarding the treatment of borderline personality disorder (BPD) through the advent of treatments such as dialectical behavioural therapy (Linehan, 1993; Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2006; Robins & Chapman, 2004), there continues to be no specific, tailored treatment for many other personality disorders, including psychopathic personality

disorder (PPD).<sup>1</sup> The successful management of borderline personality disorder (BPD) through treatment approaches such as DBT (Linehan, Comtois, Murray, Brown, Gallop, Heard, et al., 2006; Panos, Jackson, Hasan, & Panos, 2013), cognitive behavioural therapy (Davidson et al., 2006), schema therapy (Giesen-Bloo, van Dyck, Spinhoven, van Tilburg, Dirksen, van Asselt, et al., 2006), and mentalization-based therapy (Chiesa, Fonagy, & Holmes, 2006), demonstrates that treatment of personality disorders is possible. Additionally, several systematic review studies have concluded that psychotherapy is an efficacious treatment for patients with personality disorders, with reported mean effect sizes for outcome variables ranging between Cohen's  $d = 1.0$  and 2.5 (Bateman & Fonagy, 1999; Leichsenring & Leibing, 2003; Perry, Banon, & Ianni, 1999). However, often the focus of personality disorder treatment has been on the treatment of BPD and there remains a lack of services for individuals with other personality disorders, such as PPD (Gibbon et al., 2010; Yakeley & Williams, 2014).

The primary goal of the current project was to survey mental health professionals (MHPs) to determine their attitudes and experiences with respect to the treatment of PPD, compared to BPD. Given the near-complete absence of adequate empirical research, a large-scale and systematic survey of MHPs may provide useful information concerning the potential treatability of PPD.

## 1.1. Psychopathic Personality Disorder

PPD is characterized by affective, interpersonal, and behavioural deficits (Hare, 2003) that impair the individual's ability to function in society. People with PPD exhibit no remorse, are callous, unemotional and lack concern for society's mores. In addition, they

<sup>1</sup> I use PPD herein to refer to the disorder known by various names, including psychopathy, sociopathy, antisocial and dissocial personality disorder. Although some commentators have argued these names reflect distinct disorders, this is not the conventional view; see, for example, the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association, 2013). I acknowledge and accept, for the sake of argument, that PPD encompasses a broad range of pathological personality traits, but some diagnostic criteria (including the DSM-5) focus primarily on personality features related to impulsive and antisocial behaviour (Lilienfeld, 1994; Hare & Hart, 1993).

are often impulsive, antisocial, manipulative and do not have strong social bonds with others (Hare, 1996; Patrick, 2006; Lilienfeld, 1998).

Approximately 1% to 2% percent of the general population meets criteria for the diagnosis of PPD, though 15% to 25% of the prison population meets criteria for PPD (Hare, 1996, 2003; Hart & Hare, 1997; Hildebrand & de Ruiter, 2004). Though PPD alone does not necessarily lead to violence in an individual (Hemphill & Hart, 2003), within criminal populations, offenders with PPD tend to commit more violent crimes than those without PPD (Harris, Rice, & Cormier, 1991; Hemphill, Hare, & Wong, 1998; Hildebrand, Hesper, Spreen, & Nijman, 2005; Leistico, Salekin, DeCoster, & Rogers, 2008). A strong association has been recognized between PPD and several forms of violence, including community violence, and institutional management difficulties (Andrade, 2008; Hart & Hare, 1997; Hemphill, Hare, & Wong, 1998; Heilbrun et al., 1998; Hill, Rogers, & Bickford, 1996; Vien & Beech, 2006), and risk assessment research indicates that PPD is one of the strongest risk factors for antisocial and violent behaviours (Edens, Campbell, & Weir, 2007; Hart, 1998; Hare, 1999; 2003; Leistico, Salekin, DeCosta, & Rogers, 2008; Salekin, Rogers, & Sewell, 1996). As one can see, PPD often leads to severe functional impairment in an individual and to problems for the society in which the individual lives (Yakeley & Williams, 2014).

## **1.2. Treatment of Psychopathic Personality Disorder**

There is a relatively large body of research on the treatment of PPD. Much of this literature is helpful and informative in providing theoretical strategies for attempting to treat PPD patients (e.g., Galietta, Fineran, Fava, & Rosenfeld, 2010; Hemphill & Hart, 2002; Salekin, 2002; Salekin, Rogers, Machin, 2001; Skeem, Monahan, & Mulvey, 2002; Wong, 2000); however, the research literature on this topic has been unable to determine if PPD is treatable, and if so, what specific approaches would definitively enact change in PPD patients. The research that does exist does not definitively indicate PPD is untreatable (for reviews, see Blackburn, 1993, 2000; Dolan & Coid, 1993; Lösel, 1995; Salekin, 2002; Wilson, 2014; Wong, 2000; Yakeley & Williams, 2014). For

example, a meta-analysis conducted by Salekin (2002) identified only 42 studies on the treatment of PPD; however, nearly half of these were case studies. Of the 42 studies, only four occurred in the 1990s and the remainder were primarily from the 1940s to 1970s. In fact, one of the studies from the 1990s (Rice, Harris, & Cormier, 1992) was actually analysing archival data from a treatment group conducted in the 1970s and another was a case study of only four patients (Kristiansson, 1995). There was little variety amongst the 42 studies with respect to treatment approach (the majority utilized a psychodynamic orientation or therapeutic community). Despite this sample of studies, Salekin's meta-analysis revealed some improvement in PPD patients. Specifically, he found that the combination of group and individual treatment generally improved outcomes (81% of patients) and intensive individual therapy (defined as an average of four sessions per week for one year or longer) yielded a high success rate (91% of patients). He also reported that psychodynamic and cognitive-behavioural approaches were both effective in reducing pathological lying and increasing remorse and empathy for others in PPD patients.

To date there have been few, if any, empirically and methodologically sound attempts to treat PPD (Chambless & Ollendick, 2001; D'Silva, Duggan, & McCarthy, 2004; Galietta, Fineran, Fava, & Rosenfeld, 2010; Hemphill & Hart, 2002). Many of the previously conducted studies lacked control groups, lacked random assignment, did not control for heterogeneity of groups, were not prospective and used un-standardized modes of assessing PPD, such as non-validated self-report measures (Harris & Rice, 2006; Hemphill & Hart, 2002; Skeem, Monahan, & Mulvey, 2002). Past research that purports PPD is not treatable has also consisted of treatment approaches that employed outdated, unsupported therapeutic ideology, and PPD was "treated" with unscientific and unethical protocols (Galietta, Fineran, Fava, & Rosenfeld, 2010; Hemphill & Hart, 2002; Skeem, Monahan, & Mulvey, 2002). The research to date does not support the opinion that PPD is untreatable (Blackburn, 2000; Garrido, Esteban, & Molerao, 1995; Hemphill & Hart, 2002; Lösel, 1995; Salekin, 2002).

For example, one of the most cited studies reporting that individuals with PPD do not benefit from treatment was conducted by Rice, Harris, and Cormier (1992). The

authors examined the effectiveness of a Canadian therapeutic community from the 1970s that intended to reduce violent criminal recidivism of inmates with and without PPD. They concluded that inmates with PPD recidivated more after the treatment than those inmates with PPD who were not treated; however, the therapeutic community analyzed in this study was fraught with therapeutic and methodological flaws. Groups were generally run by the inmates, rather than a trained clinician, patients were not allowed to opt out or to drop out, patients had to participate in nude groups and were fed through tubes in the walls; drugs such as LSD, methedrine and alcohol were given to group members as a means to change behaviour (Harris et al., 1994, Rice, Harris, & Cormier, 1992; Skeem, Monahan, & Mulvey, 2002). The therapy these authors analyzed did not incorporate empirically supported therapeutic techniques, and thus was a poorly designed treatment for PPD. Further, the only outcome measure of their study was future violent recidivism, not reduction of PPD symptoms.

In fact, the majority of studies conducted on the treatment of psychopathic personality disorder often use future criminal behaviour as the only outcome measure; researchers do not measure or consider the reduction of the other symptoms of PPD, such as the interpersonal, affective or cognitive dysfunctions (see Hare, Clark, Grann, & Thornton, 2000; Seto & Barbaree, 1999; Skeem, Monahan, & Mulvey, 2002). Results of a recent meta-analysis that examined the effectiveness of PPD treatment on criminal recidivism (Wilson, 2014) indicated that within controlled and uncontrolled studies, there were no significant differences between treated and untreated individuals with PPD and similarly treated individuals without PPD; however, Wilson noted that there were very few studies included in the meta-analysis (only six) given the dearth of PPD treatment studies. Also, none of the six studies assessed a treatment protocol specifically designed for the treatment of PPD. Wilson concludes that the effect sizes within the studies suggest individuals with PPD may be benefiting from treatment, but she cautions that more studies with larger sample sizes are needed to make any definitive statements regarding the efficacy of PPD treatment on reducing criminal recidivism.

Another meta-analysis compared the efficacy of eleven different psychological therapies, including CBT, for PPD (Gibbon et al., 2010); however, they too were unable

to draw any definitive conclusions from the small amount of data available for analyses. Gibbon and colleagues noted that many of the studies included in their study did not specifically look at treatments for PPD, but rather, the treatments addressed comorbid disorders in the PPD patients, such as substance abuse disorders. Given that the studies largely did not target PPD specifically, the authors advocate the need for further research on PPD treatment and specifically state that treatment studies, “should focus on the key features” of the disorder (Gibbon et al., 2010).

Three recent randomized control trial studies on PPD have been conducted (see Davidson et al., 2009; Frisman et al., 2009; McKendrick et al., 2006). In Davidson and colleagues study, 52 men with PPD who had committed an act of aggression six months prior to the study were randomized to either treatment as usual (TAU) plus CBT, or TAU alone. Outcome variables, measured at a 12-month follow up period, included the occurrence of any act of aggression, alcohol misuse, “mental state, beliefs and social functioning”. Results indicated that CBT did not improve outcomes more than usual treatment for aggressive men with PPD in an outpatient setting; however, the authors caution that a larger study is required to fully assess the effectiveness of CBT in treating PPD.

The randomized control trial study by Frisman at colleagues (2009) examined case management approaches for PPD. They compared the effectiveness of Assertive Community Treatment (ACT) in delivery of integrated dual disorder treatment (IDDT) to standard clinical case management for dually-disordered persons with and without PPD. The authors defined IDDT as “integrated mental health and substance abuse treatment”, though it remains unclear from their article what was specifically involved in this treatment approach. Of note, this study evidenced unequal sample sizes such that 36 individuals with PPD were compared to 88 individuals without PPD. Individuals with PPD were only eligible for the study if they had a comorbid psychotic disorder and substance abuse diagnosis. Participants with PPD assigned to ACT showed a significantly greater reduction in alcohol use and were less likely to be incarcerated (in jail) than those in standard clinical case management; participants without PPD did not differ between the

two approaches. There were no significant differences for other substance use or incarceration outcomes.

Finally, McKendrick et al. (2006) compared a Modified Therapeutic Community (MTC) to a standard mental health treatment program provided to incarcerated male offenders with and without PPD. Participants who had a co-occurring mental illness and substance abuse problem were selected. The MTC incorporated substance abuse treatment with CBT, medication monitoring and the incorporation of community peer support. Significantly greater improvement was found on measures of criminal activity and substance use for inmates in the MTC group (as compared with the mental health treatment group) regardless of PPD diagnosis. Results indicated that negative treatment effects were not linked specifically to PPD. Differences between the treatment groups were consistent and significant, and persisted after threats to validity were examined (e.g., initial motivation, exposure to treatment, severity of substance use, severity of PPD symptomatology).

Reducing criminal recidivism is important, but a comprehensive treatment needs to address a broader range of difficulties. Additionally, there has been much debate regarding the identification of antisocial acts (e.g., criminal behaviour, recidivism) as symptoms of PPD, rather than consequences of the true symptoms of the disorder (Cooke & Michie, 2001; Cooke, Michie, & Hart, 2009; Hare, Cooke, & Hart, 1999; Hart, 1998; Cooke, Michie, Hart, & Clark, 2004; Skeem & Cooke, 2010). Therefore, it would be important to target the underlying symptoms of PPD when devising a treatment, rather than only focusing interventions on curbing the behaviour that is potentially caused by the patient's symptoms. Support that antisocial acts are not symptoms of PPD includes the fact that the classic theoretical descriptions of PPD did not include antisocial acts as a descriptor (e.g., Arieti, 1963; Cleckley, 1976; Karpman, 1961, McCord & McCord, 1964) Often it is the behavioural or interpersonal symptoms of PPD which yield criminal acts (Cooke, Michie, & Hart, 2009; Skeem & Cooke, 2010). For example, the symptoms of impulsivity or callousness in an individual with PPD may increase the likelihood that they rob someone at gunpoint.

Researchers of personality disorders advocate the importance of separating personality traits from their subsequent acts when defining personality (Blackburn, 1988; Lilienfeld, 1994). It is problematic to include antisocial acts as PPD descriptors since many symptoms of a disorder present in very different behaviours across individuals (Andrade, 2008; Skeem & Cooke, 2010). For example, more than a dozen distinct clinical descriptions of PPD have been proposed by the research community, each including or emphasizing different symptoms (Arrigo & Shipley, 2001; Berrios, 1996; Cleckley, 1976; Cooke & Michie, 2001; Hare, 1991, 2003; Lilienfeld & Andrews, 1996; Patrick, Fowles, & Krueger, 2009; Rogers, 1995).

Despite the dearth of methodologically sound studies on PPD treatment and the historical pessimism regarding the treatability of PPD patients, in more recent years, some researchers have begun to examine the effects of treatment approaches on PPD patients and are beginning to identify trends in effective and ineffective treatment approaches. For example, Hare, Clark, Grann and Thornton (2000) found that PPD patients generally do not benefit from short-term, non-specific treatments which are not targeting their PPD symptoms (e.g., anger management, social skills groups). A study by Skeem, Monahan and Mulvey (2002) on the treatment of psychiatric patients with PPD found that psychopathic traits do not moderate the effect of treatment involvement on violence. Skeem and colleagues concluded that psychiatric patients with PPD who received high intensity treatment (seven or more treatment sessions during a 10-week period) were approximately three times less likely to be violent during a subsequent 10-week period than those who receive fewer (six or fewer) sessions; however, like the majority of other studies, their outcome measure was only violence reduction. Salekin, Rogers and Machin (2001) conducted a study assessing clinical child psychologists' attitudes and experience in treating youth with PPD. Results indicated that the majority of clinicians felt youth with PPD were treatable (73%) and reported many of their PPD behaviors improved modestly to markedly with treatment (e.g., engagement in violence, behavior controls). Their study, however, only focused on youth with PPD and the authors discussed significant differences in the presentation of PPD symptomology between youth and adults, leaving the relevance of their findings to the treatment of adults with PPD unclear.

When developing a treatment and management protocol for mental illness, it is important to attempt to reduce all negative symptoms of a particular disorder. As the underlying theory of several empirically supported treatments for mental illness indicates (e.g., cognitive-behavioural therapy, dialectical behavioural therapy, mentalization-based therapy), behavioural actions are tied to cognitions and emotions; if the underlying symptoms are not addressed in treatment, often the maladaptive (and destructive) behaviours are likely to persist (Beck, 1970; Beck, 2011; Farmer & Chapman, 2008; Weishaar & Beck, 1987). Indeed, individuals with PPD often persist in destructive behaviours when left untreated, including engaging in criminal activities and recidivating more rapidly than individuals without PPD (Douglas, Strand, Belfrage, Fransson, & Levender, 2006; Hemphill, 2007). These actions are a burden for society given the negative consequences they impart on the community.

It appears that when PPD is left untreated, individuals continue in their maladaptive behaviours and cognitions (Salekin, 2002). These symptoms often pose serious consequences for members of the community. For this reason, effective treatment strategies must be created through the use of existing PPD theory and from clinical evidence collected on effective techniques for PPD symptom reduction.

### **1.3. Pessimism Regarding Psychopathic Personality Disorder Treatment**

Mental health professionals often harbour negative or pessimistic views about personality disordered patients. Numerous studies have demonstrated that the treatment of such patients is biased by pessimism and rejection (e.g. Gallop, Lancee, & Garfinkle, 1990; Lewis & Appleby, 1988). These reactions have been linked to the behaviours that personality disordered patients often engage in, including aggression, manipulation, uncooperativeness, and suicidality (Ganong, Bzdek, & Manderino, 1987; Sidley & Renton, 1996; Suokas & Lonqvist, 1989). Past research has indicated that in some cases, MHPs will judge patients with personality disorders to be less deserving of care than others (Lewis & Appleby, 1988).

The treatment of PPD may not be occurring at all given the longstanding pessimism regarding treatment outcomes (Salekin, 2002). This pessimism may stem, in part, from early PPD theorists (e.g., Cleckley, 1941, 1981, 1982; Karpman, 1946; McCord & McCord, 1964) stating that patients with PPD were not treatable. Following Cleckley, many other researchers published studies in which they too posited that PPD patients, young and old, would not benefit from therapeutic intervention (see Gacono, Nieberding, Owen, Rubel, & Bodholdt, 1997; Hare, 1970, 1991; Harris & Rice, 2006; Loving, 2002; Meloy, 1988, Meloy & Yakeley, 2010; Rice, Harris, & Cormier, 1992; Suedfeld & Landon, 1978). A second reason for the pervasive clinical pessimism regarding PPD treatment is the therapeutic frustration that working with PPD patients often produces in providers (e.g., Lösel, 1998; Ogloff, Wong, & Greenwood, 1990). Indeed, it is clear that many symptoms of PPD make treating these patients challenging. For example, the interpersonal and affective features of PPD (e.g., lack of empathy, manipulateness, pathological lying, denial of responsibility), often make it difficult to conduct empirically validated therapy techniques, such as building a therapeutic alliance or fostering insight into maladaptive behaviours (Lösel, 1995).

Individuals with PCL-R scores over 30 are often excluded from treatment studies (e.g., Hughes, Hogue, Hollin & Champion, 1997) or are terminated from the treatments earlier than participants who do not have PPD, due largely to the symptoms of their PPD interfering with treatment (Skeem, Monahan, Mulvey, 2002; see Alterman et al., 1998; Ogloff, Wong, & Greenwood, 1990; Seto & Barbaree, 1999). A study conducted by Viljoen, McLachlan, and Vincent (2010), which assessed clinicians' opinions regarding PPD assessment across juveniles and adults, found that clinicians were more likely to routinely suggest treatment plans for juveniles with PPD than for adults with PPD in their clinical reports and were more likely to recommend future risk re-evaluations for youth than adults with PPD. This pessimism is problematic given that it decreases the likelihood MHPs will attempt to treat PPD patients, and the alternative being extended confinement of PPD offenders deemed too dangerous for release (e.g., Sexually Violent Predator designations; Salekin, 2002; Vien & Beech, 2006). Given these issues, the current study sought to identify the potential biases that are occurring in regard to mental health treatment for PPD individuals, and to examine their effect on treatment outcomes.

Undoubtedly, if the majority of PPD clients are remaining untreated due to clinician bias, negative outcomes are likely to continue.

## **1.4. Borderline Personality Disorder and Treatment**

Briefly, borderline personality disorder (BPD) is a DSM-5 (American Psychiatric Association, 2013) personality disorder characterized by pervasive instability in affect, emotion regulation, interpersonal relationships, sense of self and behaviour. There is evidence in the scientific literature of the similarities between BPD and PPD, primarily within forensic populations of patients. Like PPD, BPD affects the patient across four facets of functioning: affective dysregulation, behavioural impulsivity, interpersonal instability, and maladaptive cognitive functioning (Fonagy & Bateman, 2006; Newhill, Vaughn, & DeLisi, 2010). Research has demonstrated strong associations between PPD and BPD symptoms, particularly the behavioural ones (e.g., impulsivity, risk-taking behaviour, emotional instability; Miller et al., 2010; Skeem, Johansson, Andershed, Kerr, & Eno Loudon, 2007). A study by Weizmann-Henelius and colleagues (2010) on incarcerated women indicated that BPD was significantly associated with total PPD scores (as rated by the PCL-R) and independently with both PCL-R Factor 1 (affective, interpersonal) and Factor 2 (antisocial acts, behavioural) traits. Like PPD, patients with BPD were once thought to be untreatable, due to their resistant nature in treatment, high dropout rates, comorbidity with many other disorders including substance abuse, and high suicide rate (Newhill, Vaughn, & DeLisi, 2010). Both PPD and BPD are represented in approximately 2% of the population (Hare, 1993; Hopwood, 2006), but PPD is diagnosed more often in men than women, whereas BPD is diagnosed more often in women than in men. Due to this reverse ratio of diagnoses, researchers have posited that BPD and PPD are perhaps rooted in the same etiology, but are presented by men and women through different outward symptoms (Beauchaine et al., 2009). In a criminal forensic population for example, Herpertz and colleagues (2001) found similarities in antisocial behaviour and impulsivity between BPD and PPD patients. A study by Raine (2003) also found similar levels of violent aggression between BPD and PPD patients. Therefore it would appear that BPD and PPD, though they affect gender

uniquely, seem to cause similar maladaptive behaviours between the two populations. It should be noted, however, that heterogeneity exists among both groups (Newhill, Vaughn, & DeLisi, 2010; Skeem et al., 2003; Skodal et al., 2002). For example, in order to meet diagnostic criteria for BPD in the DSM-5, a person must evidence five of nine criteria symptoms, which results in 151 possible combinations of symptoms that would meet criteria for a diagnosis of BPD (Skodal et al., 2002).

Though the research literature and clinical lore are generally pessimistic about the ability to effectively treat personality disorders, there has been a strong, empirically validated consensus that the symptoms and resulting maladaptive behaviours of BPD can be effectively treated and managed through the implementation of a variety of treatment approaches (Fonagy & Bateman, 2006; Kliem, Kröger, & Kosfelder, 2010; Lieb et al., 2010; Linehan, 1993; Ogrodniczuk, Kealy, & Howell-Jones, 2009; Paris, 2005; Stoffers et al., 2010). BPD is the most frequently treated personality disorder (Beauchaine, Klein, Crowell, Derbidge, & Gatzke-Kopp, 2009; Bender et al., 2001). An estimated 97% of patients with BPD will seek treatment (from an average of 6 different therapists) over the course of their life (Lieb, Zanarini, Schmahl, Linehan, & Bohus, 2004). Numerous randomized control trial studies have been conducted which demonstrate positive therapeutic outcomes for patients with BPD using a variety of treatment techniques, including dialectical behavioural therapy (DBT), schema therapy and mentalization-based therapy (Chiesa, Fonagy, & Holmes, 2006; Davidson et al., 2006; Giesen-Bloo, van Dyck, Spinhoven, van Tilburg, Dirksen, van Asselt, et al., 2006; Kliem, Kröger, & Kosfelder, 2010; Linehan, Comtois, Murray, Brown, Gallop, Heard, et al., 2006; Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2006; Paris, 2005; Robins & Chapman, 2004). In fact, DBT has been deemed an “empirically supported treatment” by the American Psychological Association. For these reasons, the treatment of BPD provides a strong comparison group in the present study.

Regarding MHPs’ opinions on the treatment of BPD, a survey of Canadian practitioners found that dialectical behaviour therapy (DBT) was the most frequently used treatment among the MHPs surveyed (20%) and the majority of MHPs reported the belief that the optimal treatment for BPD is DBT (45%; Ogrodniczuk, Kealy, & Howell-

Jones, 2009). Further, the majority of clinician's in that study reported that treatment was most effective when individual therapy was combined with group therapy format and provided for a long-term duration. Despite these reported successes, clinician confidence in treating BPD was low.

## **1.5. Impact of MHPs' Biases on Treatment**

Though theory is an important component of treatment development, practical clinical observation is equally crucial as it captures current practices. One step in conceptualizing an effective treatment protocol is to observe and gather evidence of effective techniques from mental health practitioners operating in the field. Indeed, this has been a common practice, with multiple surveys of MHPs' opinions having been conducted (e.g., Addis & Krasnow, 2000; Elbogen, Mercado, Scalora, & Tomkins, 2002; Krawitz & Batcheler, 2006; Van Manen et al., 2008; Viljoen, McLachlan, & Vincent, 2010; Westen, 1997). For example, Dr. Marsha Linehan developed dialectical behavioural therapy (DBT) based on her observations of suicidal female clients she was attempting to treat (Linehan, 1993). Personality disorders are understood as a global impairment of personality involving longstanding, maladaptive patterns of thought, feeling and behaviour (APA, 2000). Personality disorders are complex and pervasive. Heterogeneity often exists among personality disordered patients as a result of the variety of symptom clusters (Leihener et al., 2003; Lilienfeld, 1994; Newhill, Vaughn, & DeLisi, 2010; Skeem, Poythress, Edens, Lilienfeld, & Cale, 2003; Sanislow et al., 2002). For this reason, it is often challenging to develop interventions that effectively address the complex needs of individuals with personality disorders. Additionally, when assessing the treatment of a particular personality disorder it is crucial to ensure that there is consensus regarding the operational definition of the construct. As previously mentioned, this has been inconsistent in PPD research as many of the past studies operationalized PPD differently based on disparate theoretical frameworks. For these reasons, the present study included prototypicality analyses in order to determine if the MHPs were consistently conceptualizing the same core symptoms of PPD and BPD

when responding to questions about their patient; this will be described in more detail in the method section.

Another salient issue in assessing treatment outcomes is that MHPs often operate using their own biases (Beutler, 2000; Vervaeke & Emmelkamp, 1998; Westen, Novotny, & Thompson-Brenner, 2004), training, and theoretical backgrounds when selecting interventions to use with patients (Van Manen et al., 2008). Interventions are partly guided by non-evidenced based reasons such as availability of a facility or funding (Chiesa, Bateman, Wilberg, & Friis, 2002; Issakidis & Andrews, 2003), which can lead to ineffective treatments for patients. As a result, mental health practitioners from different regions may use opposing or uninformed strategies to treat the same mental disorder. For example, a study by Ogrodniczuk, Kealy, and Howell-Jones (2009) surveyed MHPs' practices in treating borderline personality disorder (BPD). They found that two thirds of individuals who responded to the survey indicated that they used non-supported and ill-defined treatment approaches with BPD patients; the respondents also indicated a need for more training on BPD treatment strategies. MHPs who responded to the survey seemed unaware of empirically supported psychodynamic treatments for BPD and the authors concluded that the survey evidenced a need for improved training and education regarding BPD treatment. It is likely that a similar trend is occurring in regard to PPD treatment. As there is no standardized treatment for PPD, MHPs are currently left to their own opinions regarding what interventions to attempt. As previously mentioned, often due to clinical frustration of pessimistic lore, MHPs will select PPD patients out of treatment or terminate their participation early. In order to combat these practices, the present author sought to analyze, consolidate and disseminate information regarding effective treatment approaches for PPD to MHPs in order to inform treatment selection.

## **1.6. Current Study**

To date, there is very little research on the efficacy of treatment for PPD. As such, I sought to identify MHPs' practices, attitudes and experiences in the treatment of patients with PPD, both overall and at the symptom level. MHPs from around the world

who provided therapy to personality disordered patients were asked about their opinions and practices in the treatment of either a PPD or BPD patient. Given that there is a strong general consensus and large body of empirical research on effective strategies for the treatment of BPD, this group was used as a comparison group against the treatment of PPD. In other words, attitudes and experiences in the treatment of PPD patients were compared to MHP's attitudes and treatment outcomes of BPD patients to identify potential group differences or similarities with respect to current trends, strengths and weaknesses in the treatment and management of these personality disorders. Using this information, tailored strategies that better target the symptoms of PPD, similar to those developed for the symptomatic management of BPD, will be suggested as directions for future treatment and research.

Given that this is the first study of its kind, a broad approach was taken to investigate MHPs' identification of PPD and BPD symptoms, strategies employed in their attempt to treat these patients, the outcomes of their treatment attempts and the impact of their attitudes towards patients with PPD vs. BPD on treatment efficacy (both at the global and symptom level). As no study of this kind exists to date, and the treatment literature on PPD is sparse and inconclusive at best, no *a priori* hypotheses were devised; this study is exploratory in nature. This project is an important first step in consolidating the outcomes of the treatment that is currently being attempted with PPD individuals in order to inform future treatment approaches for individuals with PPD. The research goals are as follows:

### **1.6.1. Specific Research Goals**

#### ***Attitudes Toward Treatment***

- 1) To examine MHPs' attitudes about PPD and the treatment of patients with PPD *in general*, and compare them to corresponding attitudes toward BPD and the treatment of BPD *in general*.
- 2) To examine MHPs' attitudes toward the treatment of PPD *with respect to their experience with a specific patient*, and compare them to

corresponding attitudes toward the treatment of BPD *with respect to their experience with a specific patient.*

### **Treatment Outcome**

- 3) To examine MHPs' reports of the degree of overall improvement in global PPD symptomatology *with respect to their experience with a specific patient*, and compare them to the corresponding reports of the degree of overall improvement in BPD symptomatology *with respect to their experience with a specific patient.*
- 4) To examine MHPs' reports of the degree of change in PPD symptoms during the course of treatment *with respect to their experience with a specific patient*, and compare them to the corresponding reports of the degree of change in BPD symptoms during the course of treatment *with respect to their experience with a specific patient.*

### **Treatment Moderators**

- 5) To examine the degree to which MHP's reports of treatment outcome for PPD were moderated by characteristics of the therapist, patient, and treatment with respect to their experience with a specific patient; and compare it to the degree to which MHP's reports of treatment outcome for BPD were moderated by characteristics of the therapist, patient, and treatment with respect to their experience with a specific patient.

Given the current state of the empirical literature on the treatment of PPD, these goals are framed as research questions rather than hypotheses. If one accepts the "clinical pessimism" view of treating PPD, however, the expected pattern of findings should be as follows. First, MHPs will have very negative attitudes toward the treatment of PPD, both generally and with respect to their treatment of a specific patient. The attitudes will be negative both in absolute terms and relative to the treatment of BPD. Second, MHPs will report negative outcome for the treatment of PPD with respect to

their treatment of a specific patient, both in terms of overall improvement and change during the course of treatment. The outcome will be negative in both absolute terms and relative to their treatment of a specific patient with BPD. There are no obvious grounds to expect that moderators of treatment outcome will be different for PPD and BPD.

## **Chapter 2.**

### **Method**

#### **2.1. Survey Design**

A web-based survey was distributed electronically to MHPs around the world working in a variety of clinical settings (e.g., civil, forensic, inpatient and outpatient). See Appendix C for a transcript of the online survey. Recruitment lasted from July 2013 through March 2014. Ethical approval for this study, and the methods described herein, was granted by the Office of Research Ethics at Simon Fraser University. Respondents were recruited via an email request that was sent to professional email addresses (listed in the public domain) and posted on professional membership email lists (e.g., American Psychology and Law Society – Division 41 of the American Psychology Association, Association for Behavioural and Cognitive Therapies, European Psychology and Law Society, International Association of Forensic Mental Health Services, Association of Psychology Postdoctoral and Internship Center, state-level American Psychological Association lists). Additionally, the recruitment email asked MHPs to forward the survey request to their colleagues in order to continue distribution of the survey; several MHPs emailed the researcher and indicated they had disseminated the survey. Given this recruitment design, a response rate cannot be calculated as it is impossible to know how many survey requests were distributed amongst respondents, or what additional listservs the survey was posted to by respondents. That said, the survey software indicated that 87 MHPs began the survey, but stopped before completing and submitting their responses; their data was not included in this study.

The recruitment email outlined the title, authors, and purpose of the study. Respondents were informed that the survey would take approximately 30-45 minutes to

complete and that they could choose to be entered into a draw for gift cards following their participation. Selection criteria stipulated that the respondent must have provided therapy to a patient with either PPD or BPD and that they could be practicing at the graduate student, intern or post-doctoral level, provided they were supervised by a registered psychologist while treating the PPD or BPD patient. The recruitment email provided a link to the survey, which began with the informed consent screen (see Appendix A).

The informed consent screen outlined the purpose, benefits and risks of the study in addition to contact information of the researcher and ethics board. The informed consent explained that respondents would remain anonymous and would not be providing identifying information about themselves or the patient they would be asked about in the survey. At the bottom of the screen the respondent was instructed to answer a mandatory forced-choice question indicating that they read and understood the information about the study and consented to participate; they could not proceed unless this question was answered. MHPs who consented to participate were routed to the survey questions by the survey software and MHPs who, after reading the informed consent did not consent to participate, were diverted directly to a debriefing screen (see Appendix B). Respondents who consented to participate in the study were screened regarding their history of providing therapy to either a PPD or BPD patient.

Approximately half of the respondents ( $N = 150$ ) completed all survey questions about PPD, including questions about a target patient with PPD they treated; the other half of respondents ( $N = 132$ ) answered the same survey questions about BPD and a BPD patient they treated. Initially, all respondents were asked if they had ever provided therapy to a patient with PPD. If the participant endorsed this item, they were directed to answer all survey questions regarding PPD. If the participant indicated that he or she had never provided therapy to a PPD patient, the individual was directed to the second screening question which asked if he or she had ever provided therapy to a BPD patient; if they endorsed this question, they answered all survey questions about a BPD patient. The screening questions were presented in this order under the assumption that less people would have treated PPD patients, and thus this group would be more difficult to

obtain; however, approximately half-way through data collection, the groups were quite skewed such that the majority of respondents had endorsed treating a PPD patient and completed the survey about PPD. Consequently, the order that the screening questions were presented in was reversed (e.g., respondents were first asked if they had treated a BPD patient and if they had not, then they were asked if they had treated a PPD patient). If the respondent denied ever providing therapy to either a PPD or BPD patient, he or she was directed to a debriefing screen and thanked for his or her interest in the study, but informed of their ineligibility to participate (see Appendix B).

Respondents who endorsed treating either a PPD or BPD patient were first asked to provide basic demographic information about themselves (e.g., age, gender, location of practice) and details about their clinical experience (e.g., how many patients they have treated, their theoretical orientation, setting of providing therapy). Respondents were also asked for information about their experience treating patients with either PPD or BPD (depending on if they were in the PPD or BPD group).

Following the questions regarding clinical experience, respondents were directed to a screen asking them to rate the prototypicality of 58 symptoms of either PPD or BPD (depending on the group they were in). Respondents were asked to rate the prototypicality of each symptom on a 0 to 3 Likert scale (*Not at all characteristic, Somewhat characteristic, Moderately characteristic, Very characteristic*). Of the 58 symptoms, 33 were items from *Comprehensive Assessment of Psychopathic Personality* (CAPP; Cooke, Hart, Logan, & Michie, 2004), and were theoretically conceptualized to represent PPD. Twenty-seven items were from the *Comprehensive Assessment of Borderline Personality* (CABP; Cook, Layden, Viljoen, Murray, McGinnis, & Hart, 2013) and were theoretically conceptualized to represent BPD. The remaining eight items were theorized to not represent either disorder (8 Foil items). The eight “foil” symptoms were “self-conscious,” “shy,” “considerate,” “strange,” “perfectionist,” “restrained,” “conscientious,” and “cautious.” The CAPP and CABP are described in more detail below and are presented in Appendix E and Appendix F, respectively. Respondents in both groups were asked about the prototypicality of all 58 symptoms (CAPP, CABP and Foil symptoms) in order to compare symptom endorsement across PPD and BPD

groups. PPD group respondents were asked to indicate how well each symptom represented PPD and BPD group respondents were asked to indicate how well each symptom represented BPD. We sought to identify if respondents in the PPD group would select more CAPP items (as opposed to CABP and Foil items) as indicative of PPD and if the same trend would hold true in the BPD group (they would identify more CABP items as prototypical of BPD). This part of the survey served as a manipulation check to ensure that clinician-respondents were consistent in their conceptualization of PPD and BPD, respectively.

Next, respondents were asked to recall a patient (with PPD in the PPD group and BPD in the BPD group) who they completed therapy with. Respondents were asked to provide basic, non-identifying, demographic information about the patient. They were asked details about the treatment provided to the patient (e.g., treatment setting, theoretical orientation used, length and frequency of treatment). Questions about the patient's motivation and engagement in therapy were also included.

The next several screens asked respondents about individual symptom change observed in their patient. Individuals in the PPD group were presented with the 33 CAPP symptoms. For each symptom, the respondent was asked to identify symptom severity at the beginning and end of treatment on four-point Likert scales (*Symptom not present, Mild, Moderate, Severe*). If the symptom was present in their patient, they were also asked if the severity improved or worsened due to treatment on four-point Likert scales (*Not at all, A little, Somewhat, A lot*) and for the duration of time it took for the symptom to change (on a four-point Likert scale of *Not applicable, One month or less, Several months, A year or more*). Respondents in the BPD group were asked the aforementioned questions about each of the 27 CABP symptoms.

Next participants were queried about the overall treatment outcome of their patient on a seven point Likert scale (*Significantly worse to Significantly improved*). They were asked about the overall therapeutic outcomes of their patient and their opinions about the barriers and challenges to the therapy. Finally, respondents were asked about their attitudes toward PPD or BPD patients. First, MHPs were asked to

provide a global rating of the treatability of PPD or BPD patients in response to the question, “*I feel psychopathic [BPD] patients are treatable.*” Ratings were made on a 4-point Likert scale (*Never to Always*). Attitudes were also assessed through the use of the *Attitudes to Personality Disorders Questionnaire* (APDQ; Bowers & Allan, 2006). The APDQ was altered such that respondents in the PPD group answered all questions about “psychopathic patients” and all respondents in the BPD group answered all questions about “BPD patients” (see Appendix D for APDQ questions). The APDQ is described in greater detail below.

Following completion of the survey, participants were routed to a debriefing screen re-iterating the purpose of the study and thanked for their time. They were then able to enter into a draw for gift cards (see Appendix B). In order to ensure that the respondent’s identity was in no way associated with their responses on the survey, they were provided with a password on the debriefing screen and a link to a separate prize draw web form. The separate web form instructed the respondent to input their password and email address if they wished to be considered for the prize draw.

## **2.2. Respondents**

A total of 282 MHPs participated in this project: 150 answered questions about PPD (subsequently referred to as the PPD group) and 132 answered questions about BPD (subsequently referred to as the BPD group). Given that an aim of the project is to compare PPD treatment to BPD treatment, descriptive information about respondents has been divided across the two groups.

### **2.2.1. Respondent Demographics**

As can be seen from Table 1, MHPs were demographically consistent across the PPD and BPD groups. The majority of respondents were from North America, of non-minority status and were female (63% of the PPD group, 70% of the BPD group). The respondents also evidenced a similar age range across groups; PPD group *Mean age =*

42.43 ( $SD = 12.17$ ,  $range = 24-76$ ), BPD group *Mean age* = 40.18, ( $SD = 11.79$ ,  $range = 24-75$ ). The difference in age or respondents across groups was not statistically significant:  $t(280) = 1.57$ ,  $p = 0.12$ . Chi-squared tests of independence indicated no significant differences across PPD and BPD groups regarding gender,  $\chi^2(1, N = 282) = 1.60$ ,  $p = 0.21$ ; location of practice,  $\chi^2(1, N = 280) = 0.20$ ,  $p = 0.66$ ; or minority status,  $\chi^2(1, N = 282) = 0.14$ ,  $p = 0.71$ ; The majority of respondents had received their clinical training and degree in the field of psychology; this too was not significantly different between the PPD and BPD groups,  $\chi^2(1, N = 279) = 2.16$ ,  $p = 0.14$ . See Appendix G for a detailed summary of respondent's training and specialization.

**Table 1. Respondent Demographic Variables**

	Psychopathic PD	Borderline PD	$p$
	% or $M(SD)$	% or $M(SD)$	
Age	42.43 (12.17)	40.18 (11.79)	0.12
Gender ( <i>Female</i> )	63%	70%	0.21
Loc. of Practice ( <i>North America</i> )	79%	82%	0.66
Ethnic Majority	88%	89%	0.71

*Note.* PPD group  $N = 150$ ; BPD group  $N = 132$ . PD = personality disorder. The  $p$  represents the statistical significance of the mean differences between the psychopathic and borderline PD groups. All  $p$  values, apart from the Age category, were derived from chi-squared tests of independence. Age  $p$  value was calculated from an independent samples  $t$ -test.

### 2.2.2. Respondents' General Treatment Experience

MHPs' professional treatment histories were generally consistent across PPD and BPD groups (see Table 2). With regard to primary theoretical orientation, the majority of respondents operated from a cognitive-behavioural based orientation (83% of the PPD group, 66% of the BPD group). The survey asked MHPs to identify their

orientation from among 16 different options (*Cognitive-Behavioural, Behavioural, Cognitive, Dialectical Behavioural, Psychodynamic, Existential/Humanistic, Social Learning Theory, Interpersonal, Family Systems, Mentalization Based, Schema, Cognitive Analytic, Psychoanalytic, Integrative, Eclectic, and Other*); see Appendix H for the specific percentages of respondents who endorsed the individual orientations. For the purpose of analyses, these 16 orientations were dichotomized into either a CBT-based orientation (*Cognitive-Behavioural, Behavioural, Cognitive, Dialectical Behavioural, Social Learning Theory, Mentalization Based, Schema, Cognitive Analytic*) or Other Orientation; this was done given that sample sizes were small across the individual orientations. A chi-squared test of independence indicated no significant differences across PPD and BPD groups regarding theoretical orientation,  $\chi^2 (1, N = 282) = 0.002, p = 0.96$ .

Importantly, this study appears to have gathered a sample of seasoned MHPs rather than untrained, novice providers. For example, over half of respondents in each group were practicing therapy at the doctoral level (Ph.D., Psy.D., M.D) and had been providing therapy for ten or more years (see Table 2). Of note, significant differences were found regarding these two variables, such that respondents in the PPD group were significantly more likely to have doctoral level training,  $\chi^2 (1, N = 282) = 4.37, p = 0.04, r = 0.12$ , and had been practicing therapy for longer than respondents in the BPD group,  $\chi^2 (1, N = 282) = 4.18, p = 0.04, r = 0.12$ . The majority of MHPs had been actively providing therapy within the last year (88% of PPD group MHPs, 91% of BPD group MHPs), and this difference between groups was not statistically significant,  $\chi^2 (1, N = 282) = 0.63, p = 0.43$ .

**Table 2. Respondent's General Clinical Experience**

	Psychopathic PD		Borderline PD		<i>p</i>
	<i>N</i>	%	<i>N</i>	%	
Doctoral Level of Training	102	68%	71	54%	.04
Psychology Specialization	124	83%	99	76%	.14
CBT-Based Theoretical Orientation	125	83%	87	66%	.96
Practicing Therapy 10+ years	75	50%	50	38%	.04
Practiced Therapy Within Past Year	132	88%	120	91%	.43
≥ 100 Individual Patients	87	59%	54	42%	.006
≥ 50 Therapy Groups	67	45%	44	34%	.06
Primary Work Setting					
Forensic ( <i>vs. Civil</i> )	76	51%	17	13%	<.001
Inpatient ( <i>vs. Outpatient</i> )	98	65%	42	20%	< .001
Primary Therapy Format					
Individual	99	66%	91	69%	.60
Individual / Group Equally	35	23%	34	26%	
Patients' Gender					
Male	74	50%	25	19%	<.001
Male and Female Equally	58	39%	58	44%	
Treat Primarily Adult Patients	146	97%	116	89%	.003

*Note.* PPD group *N* = 147 – 150; BPD group *N* = 130 – 132. The *p* represents the statistical significance of the mean differences between the psychopathic and borderline PD groups. All *p* values were calculated through chi-squared tests of independence. PD = personality disorder. CBT-Based = Cognitive behavioural therapy based treatment.

MHPs were consistent across groups in regard to their clinical experience. Respondents across groups tended to provide therapy primarily to adults (rather than children and adolescents), with PPD group respondents endorsing higher rates of treating primarily adult patients,  $\chi^2 (1, N = 281) = 8.56, p < 0.01, r = 0.17$ . In both the PPD and BPD respondent groups, approximately half of respondents have provided therapy to over 100 patients (see Table 2); further, 43% of PPD group respondents and 21% of BPD group respondents had provided therapy to over 250 patients. PPD group respondents treated significantly more patients than BPD group MHPs,  $\chi^2 (1, N = 276) = 7.57, p < 0.01, r = 0.17$ . Additionally, virtually all of the therapists across groups had run group therapy, and nearly half of all respondents had conducted over 50 therapy groups; there was not a significant difference between groups regarding group therapy experience,  $\chi^2 (1, N = 279) = 3.58, p = 0.06$ . Approximately half of all respondents' treatment focus has been on personality disorders or a combination of personality disorders and serious mental illness (52% of PPD group MHPs, 42% of BPD group MHPs); there was not a significant difference between groups regarding their treatment focus,  $\chi^2 (1, N = 280) = 2.63, p = 0.11$ .

The MHPs differed across groups in regard to treatment setting. Those in the PPD group were divided equally across treatment settings (51% of PPD group respondents worked in a Forensic (versus Civil) setting, and almost half work in an Inpatient (versus Outpatient) setting. The BPD group respondents were more consistent in treatment setting such that the majority tended to provide services in Civil (87%) and Outpatient (80%) settings. Chi-squared tests of independence found that these differences were statistically significant; PPD group respondents were more likely to treat their patients in a Forensic,  $\chi^2 (1, N = 282) = 44.02, p < .001, r = .40$ , and Inpatient setting,  $\chi^2 (1, N = 282) = 52.59, p < .001, r = .43$ , than BPD group respondents. For a more detailed breakdown of the respondent's treatment setting and theoretical orientation see Appendix H.

### 2.2.3. Respondents' PPD and BPD Specific Treatment Experience

When asked about disorder-specific treatment experience (treatment with either PPD or BPD patients), 28% of the MHPs in the PPD group reported they had provided therapy to more than 50 patients with PPD, 8% of which had treated more than 250 PPD patients (see Table 3). Additionally, 38% of the PPD group MHPs had conducted clinical assessments of PPD patients. Results were similar for the BPD group; 31% of BPD group MHPs reported providing therapy to more than 50 BPD patients (7% had provided therapy to more than 250 BPD patients). Thirty-five percent of BPD group MHPs had assessed more than 50 BPD patients (Table 3). As can be seen, this sample of MHPs evidenced strong and comparable experience with PPD and BPD patient treatment and management. Chi-squared tests of independence revealed no significant differences between groups regarding the number of disorder-specific patients they had treated or assessed,  $\chi^2 (1, N = 280) = 0.32, p = .57$ , and  $\chi^2 (1, N = 279) = 0.16, p = 0.67$ , respectively.

**Table 3.** *Respondent's General Experience Treating Patients with Psychopathic or Borderline PD*

	Psychopathic PD		Borderline PD		<i>p</i>
	<i>N</i>	%	<i>N</i>	%	
> 50 Disorder Specific Patients Treated	42	28%	41	31%	.57
> 50 Disorder Specific Patients Assessed	57	38%	46	35%	.67
Received Disorder Specific Specialty Training	84	56%	99	75%	.001

*Note.* PPD group *N* = 150; BPD group *N* = 132. PD = personality disorder. Disorder Specific = PPD patients for the Psychopathic PD group and BPD patients for the Borderline PD group. The *p* represents the statistical significance of the mean differences between the psychopathic and borderline PD groups. All *p* values were calculated through chi-squared tests of independence.

There was a significant difference between groups regarding the respondent's engagement in disorder specific specialty training such that BPD group respondents were significantly more likely to have received BPD-specific training:  $\chi^2 (1, N = 282) = 11.13, p < .01, r = 0.20$ . These results are not surprising considering there are BPD-specific therapy approaches (e.g., DBT), while no such program exists for PPD. The qualitative discrepancy between training experiences reported by PPD and BPD group respondents is notable in that, of the 84 respondents who endorsed having received specialty training in PPD, 46% reported that this experience was assessment focused and 33% reported they had received treatment-focused training. The most common training mentioned across MHPs in the PPD group was learning how to use the *Hare Psychopathy Checklist-Revised* (PCL-R; Hare, 1993, 2004); 37% of the MHPs who endorsed receiving specialty training indicated they had been trained in this measure. In contrast, of the 99 respondents in the BPD group who reported receiving specialty training for working with BPD, 83% indicated that their training was treatment-focused while only 2% reported that the training was assessment oriented. The most common training technique reported was DBT training (71% of MHPs in the BPD group). These results indicate that not only had the BPD group respondents received more specialty training in general, but their training was also primarily therapy-focused, while MHPs in the PPD group received training primarily on the assessment of PPD.

### **2.3. Target Patient Demographics**

As mentioned above, respondents were asked to describe a previous patient (target patient) they completed therapy with who was diagnosed with either PPD (for the PPD group) or BPD (for the BPD group). Target patients differed in gender across groups such that 91% of PPD target patients were male while only 19% of BPD target patients were male (see Table 4). As is expected, this difference was statistically significant,  $\chi^2 (1, N = 280) = 27.10, p < .001, r = 0.31$ . Target patients evidenced similar age ranges, with PPD patients being slightly older; PPD patient *Mean* age = 36.29 (*SD* = 10.04, *range* 16-60), BPD patient *Mean* age = 33.54, (*SD* = 11.23, *range* 15-80). The difference in patient age across groups was statistically significant,  $t (277) = 2.16, p =$

0.03, Cohen's  $d = 0.26$ . The majority of target patients across groups were in the ethnic majority (see Table 4); though the difference between groups was small, BPD patients were significantly less likely to be an ethnic minority  $\chi^2 (1, N = 282) = 6.51, p = 0.01, r = .15$ .

**Table 4. Target Patient Demographics**

	Psychopathic PD	Borderline PD	$p$
	% or M (SD)	% or M (SD)	
Age	36.29 (10.04)	33.54 (11.23)	.03
Gender ( <i>Male</i> )	91%	19%	< .001
Location of Treatment ( <i>North America</i> )	79%	82%	.53
Ethnic Majority	72%	84%	.01
Comorbid SMI	25%	33%	.14
Taking Psychotropic Medication	19%	45%	< .001
Criminal Record	93%	27%	< .001
Strong Social Supports	39%	43%	.52

*Note.* PPD group  $N = 150$ , BPD group  $N = 132$ . PD = personality disorder. SMI = Serious Mental Illness (Bipolar Disorder, Psychotic Disorder, Major Depressive Disorder). The  $p$  represents the statistical significance of the mean differences between the psychopathic and borderline PD groups. All  $p$  values, apart from the Age category, were derived from chi-squared tests of independence. Age  $p$  value was calculated from an independent samples  $t$ -test.

Approximately one-fourth of patients across groups evidenced a comorbid serious mental illness (SMI) for which the respondent was providing therapy; there was not a significant difference between groups with regard to patients evidencing a SMI,

$\chi^2 (1, N = 282) = 2.61, p = .014$ . Serious mental illness in the present study was coded as having a diagnosis of a psychotic disorder (e.g., schizophrenia, schizoaffective disorder), major depressive disorder, or bipolar disorder. Several group differences existed in regard to comorbid diagnoses. PPD patients were more likely to have diagnoses of comorbid psychotic disorders,  $\chi^2 (1, N = 281) = 10.84, p < .01, r = 0.20$ ; and a non-significant tendency to have more diagnoses of comorbid substance use disorders,  $\chi^2 (1, N = 282) = 1.89, p = 0.17$ . BPD patients were more likely to have diagnoses of comorbid anxiety disorders,  $\chi^2 (1, N = 282) = 24.38, p < .001, r = 0.29$ , and depression  $\chi^2 (1, N = 282) = 37.82, p < .001, r = 0.37$ . There was no difference between groups in diagnoses of comorbid bipolar disorder,  $\chi^2 (1, N = 282) = 0.005, p = 0.94$ . See Appendix I for a breakdown of target patient comorbid disorders.

As can be seen in Table 4, significantly more BPD target patients were reported to be taking prescribed psychotropic medications than were PPD target patients,  $\chi^2 (1, N = 280) = 22.42, p < .001, r = 0.28$ . As is consistent with previous research, PPD patients were reported to be more likely to have a criminal record,  $\chi^2 (1, N = 280) = 128.46, p < .001, r = 0.68$ . Finally, MHPs in both groups reported that slightly less than half of target patients had strong social supports; the difference was not statistically significant,  $\chi^2 (1, N = 280) = 0.42, p = 0.52$ .

## **2.4. Materials**

### **2.4.1. Online Survey**

This study consisted of an online survey that was created using the Remark Web Survey from Gravic Inc. Appendix C provides a template of the web-based survey questions. The survey took approximately 30 to 45 minutes to complete. As described above, MHPs who consented to participate were first screened as to whether they had ever provided therapy to either a patient with PPD or BPD. Approximately half of the respondents completed all survey questions about PPD, including questions about a target patient with PPD they treated; the other half of respondents answered the same

survey questions about BPD and a BPD patient they treated. Only those respondents who had treated a patient with PPD or BPD were able to participate. Respondents were asked about: (a) basic demographic information; (b) their clinical training and experience; (c) the prototypicality of a number of symptoms of PPD and BPD, as defined by the CAPP and CABP respectively; (d) symptom severity and treatment outcomes of the target patient they treated; and, (e) their attitudes regarding PPD or BPD patients. Upon completion of the survey, they were shown a debriefing screen and given the opportunity to enter a prize draw for gift cards. If potential respondents had not treated someone with PPD or BPD, they were debriefed and advised they were ineligible to participate.

#### **2.4.2. Comprehensive Assessment of Psychopathic Personality (CAPP; Cooke, Hart, Logan, & Michie, 2004)**

The CAPP was included in the online survey and acts as both a manipulation check (to ensure MHPs recruited for this study had a conceptualization of PPD similar to that of other MHPs surveyed in past research), and also to provide a framework for asking questions about the presentation of patients with PPD and their treatment response. The CAPP is a conceptual model of PPD and consists of 33 trait-descriptive adjectives derived systematically from the English language. The CAPP was developed using the lexical hypothesis approach which posits that the descriptors of personality are encoded into natural language, with the most relevant descriptors transformed into single words; by systematically searching language stores, one is able to identify the trait-descriptive adjectives and taxonomies of a particular personality trait or constellation of traits (Goldberg, 1993; John, Angleitner, & Ostendorf, 1988). Of note, the lexical hypothesis was also the basis for the widely validated Five Factor Model of personality (Costa & McCrae, 1992). The CAPP is intended to provide a means of conceptualizing PPD that is both comprehensive (i.e., includes a wide range of symptoms linked to PPD, according to systematic reviews of the clinical and research literature and interviews with prominent figures in the field) and dynamic (i.e., defines symptoms in a way that may permit the description and measurement of change over time). The CAPP symptoms of

PPD are organized into six domains of functioning: *Attachment, Behavioural, Cognitive, Dominance, Emotional, and Self* (see Appendix E).

Though the CAPP is still relatively new, a growing body of evidence supports its usefulness in the assessment of PPD (e.g., Dawson, et al., 2012; Hoff et al., 2012; Kreis & Cooke, 2011; Kreis, Cooke, Michie, Hoff, & Logan, 2012). A published study by Pedersen, Kunz, Rasmussen, and Elsass (2010) compared the CAPP to the *Screening Version of the Hare Psychopathy Checklist-Revised* (PCL:SV; Hart, Cox, & Hare, 1995) in predicting violence risk and recidivism outcomes on forensic psychiatric inpatients. The authors found that both PPD measures were related to a more severe and versatile criminal career. Pedersen et al. also examined 5-year follow up data on the criminal recidivism rates of their participants in order to determine the relation between PCL:SV and CAPP ratings to criminal behaviour; they found that there was no significant difference between the CAPP and PCL:SV in predicting future violence. Individuals with higher scores on both measures recidivated more often on both violent and non-violent crime than individuals with lower PCL:SV and CAPP scores. Pedersen et al. (2010) concluded that the CAPP appears to be a promising clinical risk management tool in that it is able to predict recidivism as well as the PCL: SV, and importantly, it does not rely as heavily on behavioural acts.

Several other studies have demonstrated that MHPs and laypersons consistently select similar symptoms (e.g., *Manipulative, Deceitful, Self-centered, Self-justifying, Unempathic, Lacks remorse*) as most prototypical of PPD and generally find that the CAPP is a useful conceptual model of PPD (Hoff, Rypdal, Mykletun, & Cooke, 2012; Kreis, Cooke, Michie, Hoff, & Logan, 2012; Sörman et al., 2014). Across these prior prototypicality studies, the majority of the individual CAPP symptoms and domains were rated as moderately to very prototypical of PPD, with *Dominance, Self, and Attachment* domains obtaining the highest mean prototypicality ratings (Hoff, Rypdal, Mykletun, & Cooke, 2012; Kreis, Cooke, Michie, Hoff, & Logan, 2012; Sörman et al., 2014).

In the present study, internal consistencies were calculated examining MHPs' ratings of CAPP symptom change. Symptom change scores were calculated by

subtracting respondents' ratings of each CAPP symptom severity for the end of treatment from the respective ratings for the beginning of treatment. Cronbach's alpha ( $\alpha$ ) and mean inter-item correlation (MIC) were calculated for the CAPP total and six domain scores for the PPD group (see Appendix G, Table G1). The overall internal consistency of all items (CAPP Total Score) was good,  $\alpha = 0.94$ , MIC = 0.33. Of the 33 symptoms, only *Restless* had a corrected item-total correlation below .20,  $r_{\text{CITC}} = 0.18$ . Internal consistency for CAPP domains was modest or fair to good (see Table G1 in Appendix G). The *Self* domain demonstrated the strongest internal consistency of all domains,  $\alpha = 0.80$ , MIC = 0.36, though the symptom *Unstable Self Concept* was only weakly related to the other *Self* symptoms,  $r_{\text{CITC}} = 0.20$ . The *Emotional* domain yielded the weakest internal consistency,  $\alpha = 0.56$ , MIC = 0.20; of the five symptoms in this domain, *Lacks Anxiety* and *Lacks Emotional Stability* were weakly related to the others,  $r_{\text{CITC}} = 0.08$  and 0.24, respectively).

### **2.4.3. Comprehensive Assessment of Borderline Personality (CABP; Cook et al., 2013)**

The CABP, like the CAPP, was included in the online survey as both a manipulation check and to provide a framework for asking questions about the presentation of patients with BPD and their treatment response. The CABP is a model of understanding borderline personality disorder (BPD) developed with same strategies and principles used to develop the CAPP. The 27 symptoms of the CABP (Appendix F) were derived systematically from the empirical literature on BPD using the lexical hypothesis approach. Like the CAPP, the CABP was created by searching the empirical literature on BPD and selecting the symptoms that are considered to be the core features of BPD as well as the equally important, non-central features of BPD.

The CABP was originally created with the intention that it would be used in conjunction with the CAPP to assess the theoretical overlap of PPD and BPD as well as the distinct features of the two disorders, as was done in the present study. The six domains of the CABP are identical to those of the CAPP (*Attachment, Behavioural, Cognitive, Dominance, Emotional, Self*), though many of the individual symptoms are

different as they reflect specific BPD symptomology (see Appendix F). That said, there are ten overlapping symptoms (*Deceitful, Manipulative, Reckless, Detached, Disruptive, Inflexible, Lacks emotional stability, Suspicious, Lacks planfulness, Unstable self-concept*).

For the purpose of making direct comparisons between PPD and BPD groups, the CABP was utilized in the current study as the model to assess BPD symptoms, rather than using another measure. As the CABP is a new model of BPD, no published empirical research exists. However, preliminary research on the prototypicality of CABP has been presented at conferences. For example, Lim et al. (2013) asked forensic MHPs to make prototypicality ratings of the CAPP, CABP and foil symptoms with respect to PPD or BPD. Results of this project indicated that the symptoms with the highest prototypicality ratings with respect to BPD were *Lacks emotional stability, Emotionally expressive, Self-destructive, and Unstable self-concept*. The *Behaviour, Self, and Emotion* domains were rated by forensic MHPs as most prototypical of BPD. The study also found that non-CABP symptoms (the foils and some CAPP symptoms) generally had the lowest prototypicality ratings. However, only slightly over half of the CABP symptoms were rated as highly representative of BPD. This suggests that the CABP may not be as clear of a conceptual model of BPD as the CAPP is of PPD (Lim et al., 2013).

In the present study, internal consistencies were calculated examining MHPs' ratings of CABP symptom change. Symptom change scores were calculated by subtracting respondents' ratings of each CABP symptom severity for the end of treatment from the respective ratings for the beginning of treatment. Cronbach's alpha ( $\alpha$ ) and mean inter-item correlation (MIC) were calculated for the CABP total and six domains for the BPD group (see Appendix G, Table G1). The overall internal consistency of all symptoms (CABP Total Score) was good,  $\alpha = 0.92$ , MIC = 0.29. None of the 27 symptoms was weakly related to the others, all  $r_{CITC} \geq .30$ . Internal consistency for CABP domains was modest to good (see Table G1 in Appendix G). The *Emotional* domain had the highest internal consistency,  $\alpha = 0.80$ , MIC = 0.40. The *Attachment* domain had the lowest internal consistency,  $\alpha = 0.52$ , MIC = 0.18; of the five symptoms

in the *Attachment* domain, *Rejecting* and *Idealizing* had the weakest association with the others,  $r_{\text{CITC}} = 0.24$  and  $0.16$ , respectively. Among the other symptoms, only *Passive* had a weak association to the other symptoms in its domain,  $r_{\text{CITC}} = 0.19$ .

#### **2.4.4. Attitudes to Personality Disorders Questionnaire (APDQ; Bowers & Allan, 2006)**

MHPs' attitudes toward treating PPD and BPD patients were also assessed using an adapted form of the APDQ. This scale consists of 35 items that gauge an individual's attitudes and beliefs about working with personality disordered (PD) patients (see Appendix D). In the present study, participants were asked to rate the frequency of occurrence for each item on a 4-point Likert scale (*Never, Some of the time, Most of the time, Always*). The items load across five domains: (a) *Enjoyment/Loathing*, reflecting warmth, liking for, and interest in PD patients; (b) *Security/Vulnerability*, reflecting fears, anxieties and helplessness in relation to PD patients; (c) *Acceptance/Rejection*, reflecting anger towards PD patients or a sense of difference from them; (d) *Purpose/Futility*, reflecting a lack of feelings of meaning or purpose in working with PD patients; and (e) *Enthusiasm/Exhaustion*, reflecting feeling tired or mentally exhausted from working with PD patients. In the present study, domains will be referred to by the more negative domain name (e.g., *Enjoyment/Loathing* will be referred to as *Loathing*) for the purposes of brevity and interpretation. Items within the *Vulnerability, Rejection, Futility* and *Exhaustion* domains are phrased on the APDQ in negative or pessimistic wording (e.g., "*I feel frustrated with psychopathic patients*"). All items on the *Enjoyment/Loathing* domain were reverse coded for comparison purposes to the other domains as they are worded in positive terms on the APDQ (e.g., "*I like psychopathic patients*"). In the present study, items were altered to ask about respondent's attitudes toward "psychopathic patients" (for respondents in the PPD group) rather than "PD patients" as is originally written on the APDQ. The questions were altered to ask about "BPD patients" for respondents answering all survey questions about BPD. The original APDQ also asks participants to rate the frequency of items on a 6-point Likert scale rather than a 4-point Likert scale as was used in the present study.

Scores from the APDQ have been shown to be related to underlying beliefs and judgments about the negative behaviours of personality disordered patients. Positive scores have been shown to be correlated with low staff stress, more frequent interactions with patients, and more optimistic perceptions by MHPs of patient management (Bowers, 2002; Bowers et al., 2003; Bowers et al., 2006). The APDQ has been used with samples of nurses working in the High Secure Psychiatric Hospitals (Bowers et al., 2000; Bowers, 2002), Prison Officers working in the Dangerous and Severe Personality Disorder units (Bowers et al., 2003; Carr-Walker et al., 2004), and in samples of staff working in acute psychiatric wards. The APDQ has a robust structure, good psychometric properties, and is useful for outcome studies (Bowers et al., 2007). Cronbach's alpha of 0.93 and 0.94 for the total score have been reported (Bowers et al., 2007), and test-retest reliabilities for the total and domain scores range from 0.72 to 0.85.

In the present study, internal consistencies were calculated using Cronbach's alpha ( $\alpha$ ) and mean inter-item correlations (MIC) for PPD group respondents and BPD group respondents separately. In the PPD group, the APDQ yielded good overall consistency,  $\alpha = 0.91$ , MIC = 0.23. Of the 35 individual items, "*I feel that psychopathic patients are alien, other, strange*" and "*I feel unable to gain control of the situation with psychopathic patients*" had the lowest corrected item total correlations,  $r_{CITC} = 0.21$  and 0.09, respectively. Internal consistency of the five APDQ domains was fair to good (see Table G2 in Appendix G). The *Loathing* domain demonstrated the strongest internal consistency,  $\alpha = 0.92$ , MIC = 0.42; whereas the *Rejection* domain yielded the weakest internal consistency,  $\alpha = 0.62$ , MIC = 0.25. Of the five items in the *Rejection* domain, "*I feel that psychopathic patients are alien, other, strange*" again had the lowest corrected item total correlation,  $r_{CITC} = 0.21$ . No other items demonstrated low corrected item total correlations across domains.

The BPD group results were similar to those obtained by the PPD group. The overall internal consistency in the BPD group was high,  $\alpha = 0.93$ , MIC = 0.26. Of the 35 individual items, "*I feel angry towards BPD patients*" and "*I feel frightened by BPD patients*" had the lowest corrected item total correlations,  $r_{CITC} = 0.24$  and 0.12,

respectively. Internal consistencies for the five APDQ domains were modest to high as well (see Table G2 in Appendix G). As in the PPD group, in the BPD group the *Loathing* domain had the strongest internal consistency,  $\alpha = 0.94$ , MIC = 0.49; and the *Rejection* domain had the lowest internal consistency,  $\alpha = 0.68$ , MIC = 0.30. No other items demonstrated low corrected item total correlations across domains.

## 2.5. Representativeness of MHPs

### 2.5.1. Prototypicality Ratings of CAPP Symptoms

There are no simple ways to specify the universe of MHPs who treat patients with PPD or BPD, or to determine the degree to which the MHPs recruited to participate in the present study are representative of that universe. I could, however, determine the extent to which MHPs in the current study had prototypes of PPD or BPD that were similar to those of MHPs who had participated in past research using the CAPP and CABP, respectively.

In past research using the CAPP, MHPs made prototypicality ratings using a 7-point scale, ranging from 1 to 7 (e.g., Hoff et al., 2012; Sörman et al., 2014). To facilitate comparison with prototypicality ratings from the present study, I converted the other ratings to a 4-point scale, ranging from 0 to 3, by prorating them (i.e., multiplying them by 4 and then dividing by 7). Prototypicality ratings between 1.5 and 2.0 are considered moderately typical, 2.0 and 2.5 are highly typical and above 2.5 are considered very highly typical.

Table J1 in Appendix J presents the prototypicality ratings of CAPP and foil symptoms for PPD from the present study. Of the 33 CAPP symptoms, 27 had mean prototypicality ratings above 1.5, and 21 had mean ratings above 2.0. Symptoms considered very highly prototypical (mean ratings above 2.5) were *Lacks remorse*, *Deceitful*, *Unempathic*, *Manipulative*, *Insincere*, *Self-centered*, *Sense of entitlement*, and *Self-justifying*. Conversely, *Lacks perseverance*, *Restless*, *Lacks Planfulness*, *Unstable*

*self-concept*, *Lacks concentration*, and *Lacks pleasure* were considered not prototypical of PPD, each with mean ratings below 1.5. As would be expected, the non-CAPP symptoms (i.e., the Foil symptoms) had the lowest typicality ratings. All eight foils were judged low prototypicality, with mean ratings below 1.0.

Paired-sample *t*-tests were conducted to examine if the CAPP and Foil symptoms were rated differently. Overall, the mean prototypicality rating of CAPP symptoms was significantly higher than that of the eight Foil symptoms,  $t(148) = 40.55$ ,  $p < .001$ ,  $d = 5.71$ . Each of the 33 individual CAPP symptoms had a higher prototypicality rating than did the average Foil symptom, all  $p < .001$ , with medium to large effect sizes ranging from  $d = 0.44$  to 5.81. This finding suggests that, consistent with past research (Hoff et al., 2012; Kreis et al., 2012; Lim et al., 2013; Sörman et al., 2014), MHPs rated CAPP symptoms as much more prototypical of PPD than were the Foil symptoms (see Figure 1).

For an even stronger test of consistency, I examined the correlation between the mean prototypicality ratings of CAPP and Foil symptoms made by MHPs in the present study to those made by MHPs in four previous studies (Hoff et al., 2012; Kreis et al., 2012; Lim et al., 2013; Sörman et al., 2014). The correlations were all very large,  $r(39; df \text{ reflecting number of symptoms})$  ranging from .91 to .99, all  $p < .001$  (see Table 5). In summary, the evidence from these analyses indicated that MHPs in the current sample conceptualized PPD in a manner very similar to that of MHPs in previous research using the CAPP.

### **2.5.2. Prototypicality Ratings of CABP Symptoms**

Table J2 in Appendix J presents the prototypicality ratings of CABP and Foil symptoms for BPD. Of the 27 CABP symptoms, 16 had moderate prototypicality ratings (mean above 1.5), and 6 had mean ratings above 2.0. Symptoms considered very highly prototypical (mean ratings above 2.5) were *Lacks Emotional Stability*, *Unstable self-concept* and *Self-destructive*. Conversely, 11 CABP symptoms were considered not prototypical of BPD, each with mean ratings below 1.5, with *Deceitful* and *Detached*

having mean ratings below 1.0. No obvious pattern was noted for the 10 overlapping CAPP/CABP symptoms, which had prototypicality ratings that ranged from 0.61 to 2.9. As would be expected, the non-CABP symptoms (i.e., the Foil and some CAPP symptoms) had the lowest prototypicality ratings. All eight foils were judged not prototypical of BPD with mean ratings below 1.5; indeed, only the Foil item *Self-Conscious* had a mean rating above 1.0.

Paired-sample *t*-tests were conducted to examine if the CABP and Foil symptoms had different mean prototypicality ratings. Overall, the average rating for CABP symptoms was significantly higher than that of the eight Foil symptoms,  $t(131) = 26.82, p < .001, d = 2.33$ . *Detached* was not rated significantly more prototypical of BPD than the average of the foils,  $t(130) = -1.41, p = .16$ . Each of the remaining symptoms was rated significantly more prototypical of BPD than the average of the Foil, all  $p \leq .002$ , with medium to large effect sizes,  $d = 0.39$  to  $5.25$ .

Overall, the CABP model appeared less robust in capturing the construct of BPD as compared to the CAPP model of PPD. Slightly over one-half of the CABP symptoms were prototypical of BPD, with only about one-quarter being judged as highly prototypical of BPD. These results are consistent with those obtained by Lim and colleagues (2013) in their study of forensic mental health professionals (see Figure 2). The correlation between the prototypicality ratings of CABP and Foil symptoms in the present study and in the Lim et al. study was large,  $r = .86, p < .001$ .

**Table 5. Pearson's *r* Correlations Between CAPP Prototypicality Studies on PPD**

	Kreis et al., 2012	Hoff et al., 2012	Lim et al., 2013	Sörman et al., 2014 <sup>†</sup>
Present Study	.95	.91	.99	.95
Kreis et al., 2012		.91	.96	.94
Hoff et al., 2012 <sup>†</sup>			.92	.89
Lim et al., 2013 <sup>†</sup>				.96

*Note.* All correlations significant at  $p < .001$  level.  $N = 41$  as all correlations included Foil item rankings. <sup>†</sup>The clinical professionals sample was used for comparison from the Hoff et al., 2012 study and the Forensic clinician sample was used from the Lim et al., 2014 sample; the Forensic evaluator sample was used from Sörman et al., 2014.

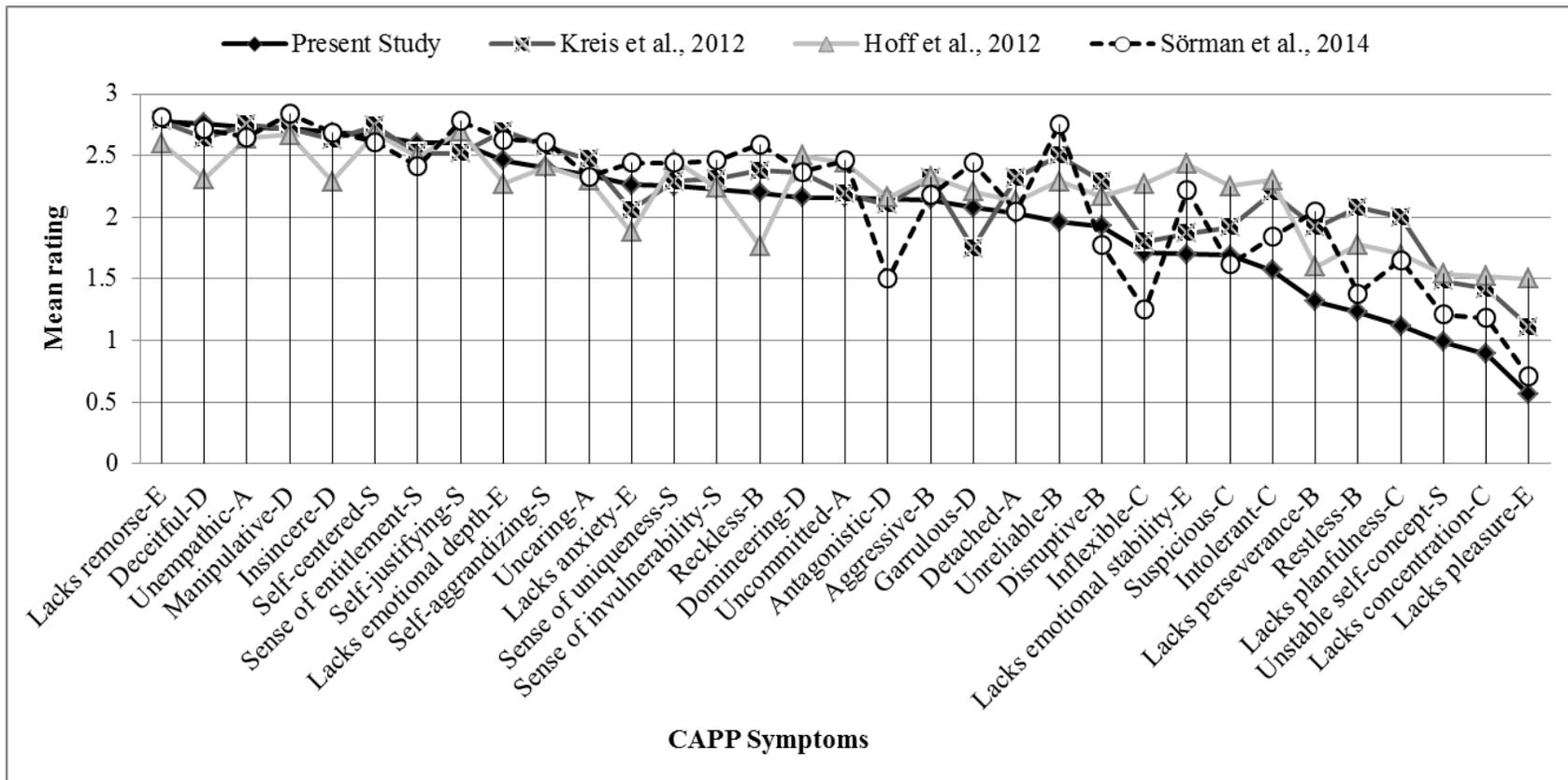


Figure 1. Comparison of mean prototypicality ratings across CAPP prototypicality studies. The Hoff et al., 2012 data is the forensic psychiatry sample. The Sörman et al., 2014 data is the forensic evaluator sample. The other three studies were originally coded on a 1 – 7 scale. A = Attachment domain, B = Behavioural domain, C = Cognitive domain, E = Emotional domain, S = Self domain.

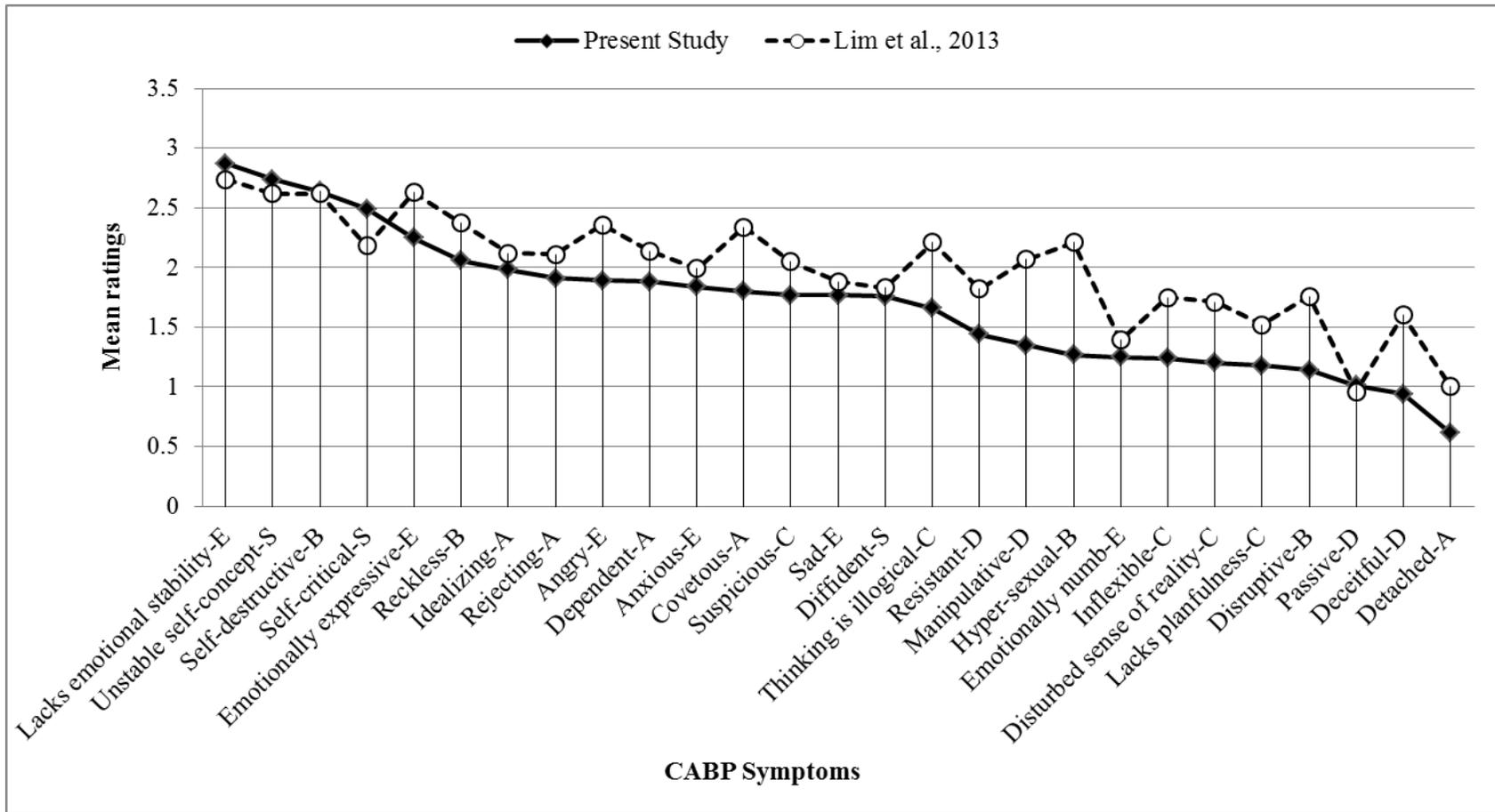


Figure 2. Comparison of mean prototypicality ratings across CABP prototypicality studies. The Lim et al., 2013 data is the forensic psychiatry sample and was originally coded on a 1 – 7 scale. A = Attachment domain, B = Behavioural domain, C = Cognitive domain, E = Emotional domain, S = Self domain.

## Chapter 3.

### Results

#### 3.1. General Attitudes

##### 3.1.1. General Attitudes about PPD

###### *Global Rating of Treatability*

As indicated in the method section, MHPs were asked to provide a global rating of the treatability of PPD patients in response to the question, “*I feel psychopathic patients are treatable.*” In response to this question, 95% of MHPs endorsed the belief that PPD patients are treatable, to at least some extent. Of these respondents, 69% reported that PPD is treatable *Some of the time*, 24% reported PPD is treatable *Most of the time*, and 2% said they felt PPD was *Always* treatable. Clearly, most MHPs were not nihilistic or highly pessimistic regarding the treatability of PPD.

###### *APDQ Results*

As previously mentioned, the APDQ yields a total score and five domain scores (*Loathing, Vulnerability, Rejection, Futility, and Exhaustion*). Mean item scores were calculated for the APDQ total score and domains (Table 6). The Total APDQ Mean score was 2.31 ( $SD = 0.33$ ). The *Loathing* domain yielded the highest mean rating ( $M = 2.95$ ,  $SD = 0.48$ ), followed by the *Exhaustion* domain ( $M = 2.36$ ,  $SD = 0.65$ ), *Futility* ( $M = 1.99$ ,  $SD = 0.59$ ), *Vulnerability* ( $M = 1.79$ ,  $SD = 0.36$ ), and *Rejection* ( $M = 1.65$ ,  $SD = 0.34$ ). All domains were significantly correlated with each other,  $r = .21$  to  $.62$ , all  $p < .01$ , and with the APDQ Total score,  $r = .47$  to  $.85$ , all  $p < .001$ .

**Table 6. Mean Ratings for APDQ Results across Total and Domain Scores**

	Psychopathic PD	Borderline PD	<i>p</i>
	M (SD)	M (SD)	
APDQ Total Score	2.31 (0.33)	1.93 (0.32)	< .001
Loathing	2.95 (0.48)	2.33 (0.51)	< .001
Vulnerability	1.79 (0.36)	1.58 (0.33)	< .001
Rejection	1.65 (0.34)	1.49 (0.29)	< .001
Futility	1.99 (0.59)	1.59 (0.43)	< .001
Exhaustion	2.36 (0.65)	2.21 (0.50)	0.03

*Note.* PPD group  $N=150$ , BPD group  $N = 131$ . Higher scores indicate more pessimistic views. The  $p$  represents the statistical significance of the mean differences between the psychopathic and borderline PD groups. The  $p$  values were calculated through independent sample  $t$ -tests.

### **3.1.2. General Attitudes about BPD**

#### ***Global Rating of Treatability***

In response to the question regarding treatability, 99% of MHPs endorsed the belief that BPD patients are treatable, at least to some extent. Of these respondents, 14% reported that BPD is treatable *Some of the time*, 66% reported BPD is treatable *Most of the time*, and 19% said they felt BPD was *Always* treatable.

#### ***APDQ Results***

The Total APDQ Mean score for the BPD group was 1.93 ( $SD = 0.32$ ). The *Loathing* domain yielded the highest mean rating ( $M = 2.33$ ,  $SD = 0.51$ ), followed by the *Exhaustion* domain ( $M = 2.21$ ,  $SD = 0.50$ ), *Futility* ( $M = 1.59$ ,  $SD = 0.43$ ), *Vulnerability* ( $M = 1.58$ ,  $SD = 0.33$ ) and *Rejection* ( $M = 1.49$ ,  $SD = 0.29$ ). This pattern of results is identical to the PPD group (see Table 6), though generally mean ratings were lower in

the BPD group than those in the PPD group, indicating less pessimistic views about BPD patients. All domains were significantly correlated with each other,  $r = .25$  to  $.61$ , all  $p < .01$ , and with the APDQ Total score,  $r = .51$  to  $.89$ , all  $p < .001$ .

### **3.1.3. Comparison of PPD and BPD Respondents' General Attitudes**

#### ***Global Rating of Treatability***

There was a significant difference between groups regarding treatability,  $t(279) = 11.69$ ,  $p < .001$ ,  $d = 1.32$ ; MHPs reported BPD was more treatable than PPD.

#### ***APDQ Results***

Independent sample  $t$ -tests were conducted to examine differences between PPD and BPD groups regarding attitudes toward the treatment of PPD and BPD, as measured by the APDQ. As Figure 3 demonstrates, significant differences in attitude toward PPD and BPD patients were also obtained for the APDQ Total score,  $t(279) = 10.03$ ,  $p < .001$ ,  $d = 1.17$ , and for the five domains: *Loathing*,  $t(279) = 10.53$ ,  $p < .001$ ,  $d = 1.25$ ; *Vulnerability*,  $t(279) = 4.83$ ,  $p < .001$ ,  $d = .61$ ; *Rejection*,  $t(279) = 4.00$ ,  $p < .001$ ,  $d = .51$ ; *Futility*,  $t(279) = 6.47$ ,  $p < .001$ ,  $d = .77$ ; and *Exhaustion*,  $t(279) = 2.21$ ,  $p = .03$ ,  $d = .26$ . Again, these results indicate that BPD group respondents evidenced significantly more positive attitudes toward BPD patients than PPD group MHPs did for PPD patients (see Figure 4).

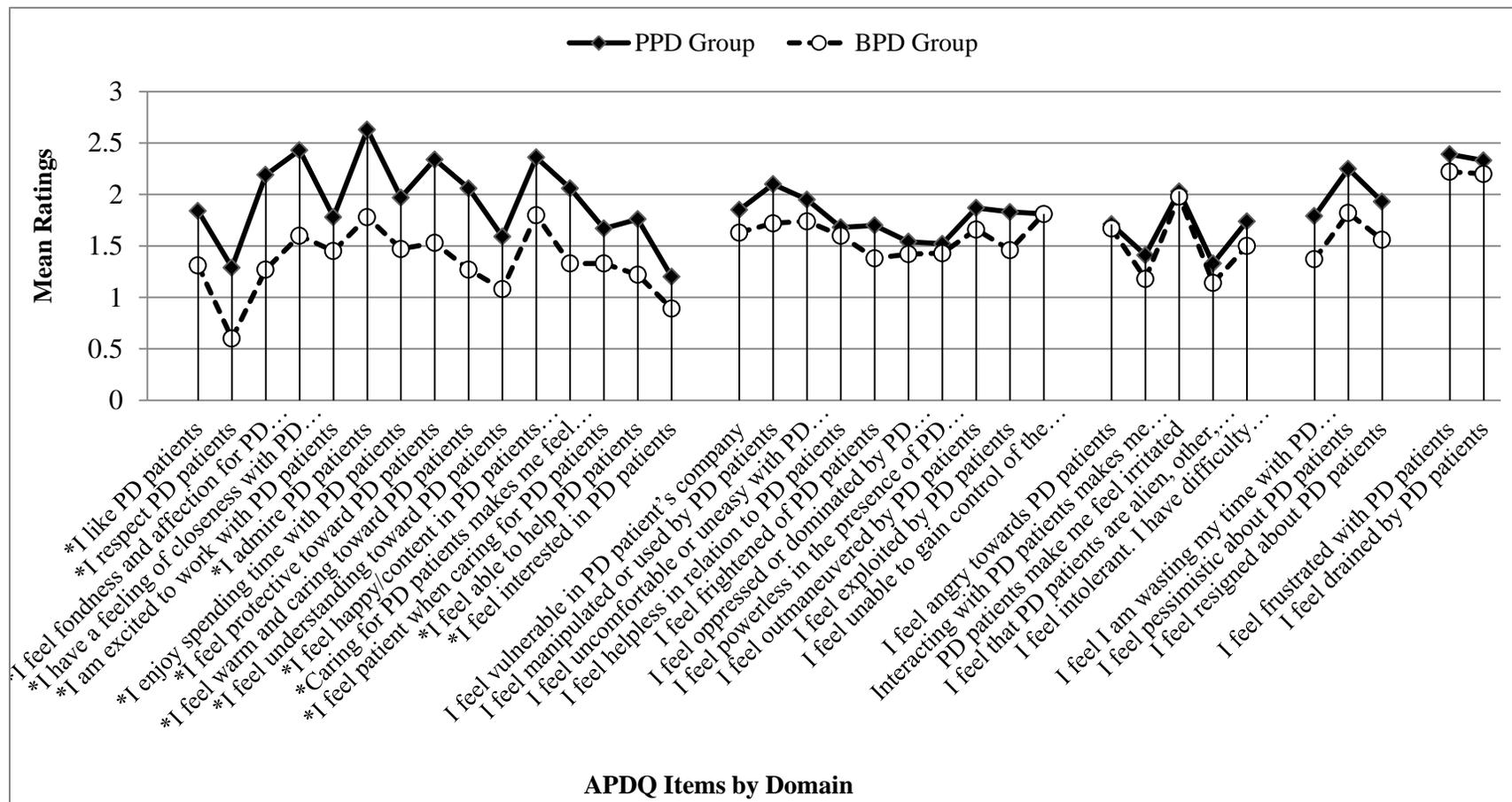


Figure 3. Comparison of Mean APDQ Ratings by Domain for PPD and BPD Groups. \*Denotes the items were reverse coded. The 1st block of items = Loathing Domain; 2nd block = Vulnerability Domain; 3rd block = Rejection Domain; 4th block = Futility Domain; 5th block = Exhaustion Domain.

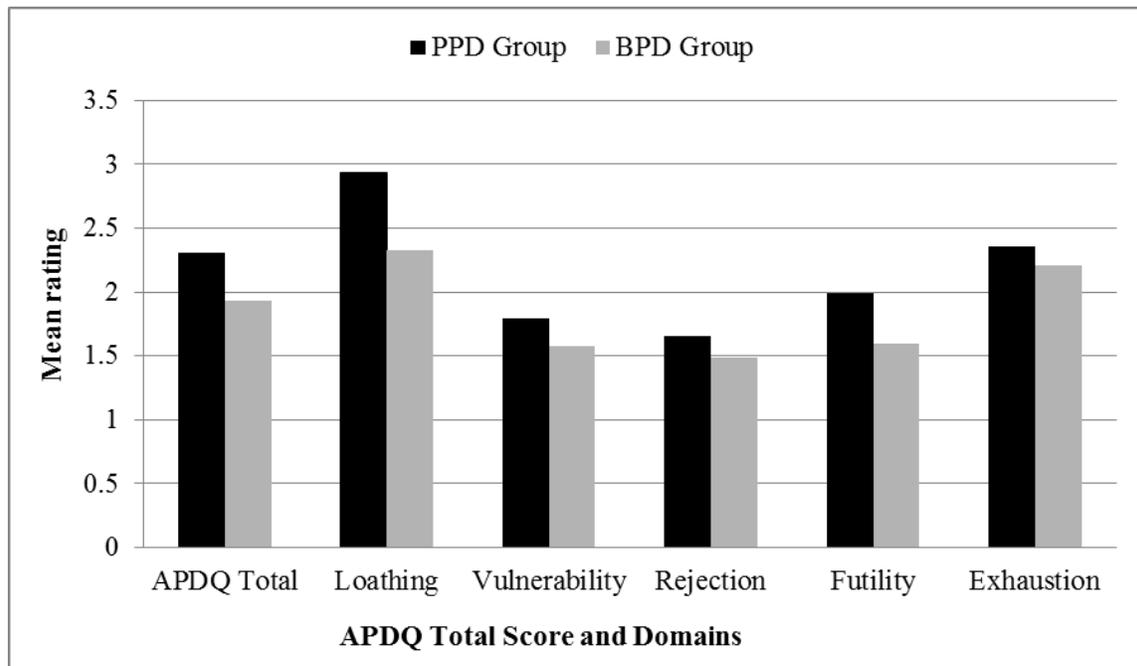


Figure 4. Attitude comparisons between PPD group and BPD group respondents on the APDQ. APDQ = Attitudes to Personality Disorders Questionnaire. All between group differences are significant at  $p < .05$ .

### 3.2. Patient-Specific Attitudes

#### 3.2.1. PPD Patient-Specific Attitudes

MHPs were asked four questions about their initial opinions about a specific PPD patient, prior to their initiation of treatment. Specifically, they were asked to rate on a 4-point Likert scale (*Not at all* to *Very much so*) the following: (a) how treatable they thought the patient would be, (b) how willing they were to treat the patient, (c) how optimistic they were about positive treatment outcomes, and (d) how confident they were in treating the patient (see Appendix K). These four questions were highly correlated,  $r = .46$  to  $.66$ ,  $p < .001$ . Of these four questions, MHPs rated their willingness to treat the patient highest. Specifically, 77% of respondents indicated they were moderately to very willing to treat their patient. The second highest endorsement was for confidence in their

ability to treat the patient; 39% reported moderate to high confidence. Only 34% of respondents were moderately to very optimistic that their patient's symptoms of PPD would improve with treatment; 16% were not optimistic at all that the patient would improve. When asked how treatable they initially perceived their PPD patient to be, 26% of respondents felt that the patient was moderately treatable and only 5% felt the patient was very treatable. Of note, 19% of respondents felt their PPD patient was not treatable at the onset of therapy.

MHPs were also asked about their opinions of treatment post-termination. Specifically, they were asked if they felt the length and frequency of treatment sessions were appropriate and if overall, the treatment they provided to the patient was appropriate for the patient's severity of symptoms. The majority of MHPs reported that the treatment they provided was appropriate for the severity of the patient's symptoms (70%) and that the frequency of sessions was appropriate (67%); however, about half reported that more sessions were needed (48%).

### **3.2.2. BPD Patient-Specific Attitudes**

As with the PPD group, the four pre-treatment questions were highly correlated in the BPD group,  $r = .46$  to  $.70$ , all  $p < .001$ . Of these four questions, respondents rated their willingness to treat the patient highest ( $M = 3.57$ ,  $SD = .66$ ). Specifically, 92% of respondents reported they were moderately to very willing to treat their patient. The second highest endorsement was for optimism regarding the patient's symptoms improving with treatment ( $M = 2.90$ ,  $SD = .74$ ); 70% of respondents reported moderate to high levels of optimism. Unlike the PPD group, the majority of BPD group respondents (63%) reported the belief that their patient was moderately to very treatable ( $M = 2.85$ ,  $SD = .78$ ); 24% felt their patient was very treatable and only 2% felt their patient would not be treatable. Finally, the majority of respondents were also moderately to very confident in their ability to effectively treat their patient prior to treatment ( $M = 2.80$ ,  $SD = .73$ ); 66% were moderately to very confident in their abilities to treat their patient.

Respondents were also asked about their opinions of treatment post-termination. Specifically, they were asked if the length and frequency of treatment sessions were appropriate and if overall, the treatment they provided to the patient was appropriate for the patient's severity of symptoms. The majority of respondents (77%) felt the treatment they provided was appropriate for the severity of the patient's symptoms. The majority of respondents also felt the frequency (78% of respondents) and number of sessions (55% of respondents) were appropriate.

### **3.2.3. Comparison of PPD and BPD Patient-Specific Attitudes**

Figure 5 demonstrates the between group differences in high to moderate (versus low to no) endorsement of pre-treatment attitudes. Independent sample *t*-tests were conducted to examine between group differences on patient-specific pre-treatment attitudes as these variables were not approaching normal distribution, and as such, were not dichotomized. Significant differences were found between groups on all four pre-treatment attitude questions such that more positive attitudes were reported from the BPD group respondents than PPD group respondents: (a) patient treatability,  $t(280) = 7.17, p < .001, d = 0.85$ ; (b) willingness to treat the patient,  $t(278) = 4.75, p < .001, d = 0.59$ ; (c) optimism about patient treatment success,  $t(278) = 7.05, p < .001, d = 0.84$ ; and (d) confidence in ability to treat patient,  $t(278) = 4.97, p < .001, d = 0.59$ .

Chi-squared tests of independence were conducted on the post-treatment patient-specific attitudes questions. There was not a significant difference between groups regarding the item asking if the respondent believed the therapy provided was appropriate for their patient's severity of symptoms,  $\chi^2(1, N = 278) = 1.75, p = 0.19, r = 0.08$ . There were significant differences between PPD and BPD respondents' post-treatment attitudes with regard to the perceived appropriateness of the number of sessions they had with the patient,  $\chi^2(1, N = 279) = 16.13, p < .001, r = 0.24$ ; and the frequency of sessions with the patient,  $\chi^2(1, N = 281) = 4.34, p = 0.04, r = 0.12$ . These results suggest that respondents in the PPD group were less likely to feel that overall they had enough therapy sessions with adequate frequency.

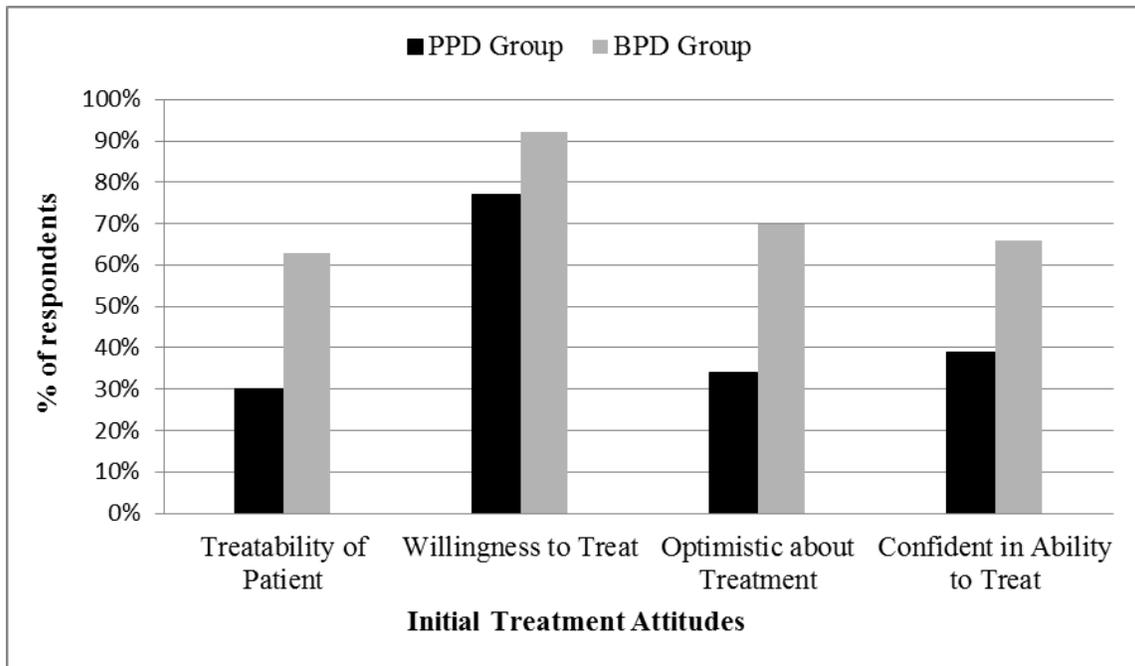


Figure 5. Comparison of initial treatment attitudes between PPD and BPD group respondents. Results displayed are for moderate to high endorsement of the item.

### 3.3. Challenges to Therapy

#### 3.3.1. Challenges to Therapy with PPD Patients

MHPs were asked about the presence of a number of therapy challenges they may have faced during the treatment of their PPD patients. As can be seen from Table 7, the most common challenges to therapy they reported included Patient lack of insight (92% of patients), Patient lack of motivation (89%), Inability to develop a therapeutic alliance (88%), Patient ambivalence (82%), and Patient manipulation of the therapist (66%).

### 3.3.2. Challenges to Therapy with BPD Patients

MHPs were asked about the presence of a number of therapy challenges they may have faced during the treatment of their BPD patients. As can be seen from Table 7, the most common challenges to therapy they reported included Patient self-destructive behaviours (79% of patients), Patient ambivalence (71%), Patient lack of motivation (70%), Inability to develop a therapeutic alliance (70%), and Patient lack of insight (68%).

### 3.3.3. Comparison of PPD and BPD Challenges to Therapy

I compared the frequency of reported therapy-challenging behaviours across the PPD and BPD groups. For this analysis, the variables Suicidal, Lacks motivation, Self-destructive, Ambivalence, Lacks insight, and Failure to develop a therapeutic alliance were dichotomized (*Present* versus *Not present*). Several significant differences were found. Compared to MHPs from the BPD group, MHPs in the PPD group reported significantly more observation of the following problems during the treatment of their target patient: Lack motivation,  $\chi^2 (1, N = 279) = 16.28, p < .001, r = 0.24$ ; Lack insight,  $\chi^2 (1, N = 277) = 24.97, p < .001, r = 0.30$ ; Fail to form a therapeutic alliance,  $\chi^2 (1, N = 279) = 13.71, p < .001, r = 0.22$ ; Ambivalence towards therapy,  $\chi^2 (1, N = 275) = 4.88, p = .03, r = 0.13$ ; and Manipulation of the therapist,  $\chi^2 (1, N = 282) = 28.61, p < .001, r = 0.32$ . In contrast, BPD patients were reported to engage in significantly more of the following problems: Suicidality,  $\chi^2 (1, N = 277) = 33.15, p < .001, r = 0.35$ ; and Self-destructive behaviour,  $\chi^2 (1, N = 277) = 20.86, p < .001, r = 0.27$ . There were no significant differences for the remaining problems: Non-attendance, Failure to complete homework, Failure to engage in session discussion, and In-session aggression (see Table 7).

**Table 7. Comparison of Challenging Patient Behaviour across PPD and BPD Groups**

	Psychopathic PD	Borderline PD	<i>p</i>
	%	%	
Non-attendance	30%	33%	.55
Failure to Complete Homework	39%	46%	.25
Failure to Engage in Discussion	29%	23%	.26
Anger/Aggression in Session	25%	26%	.83
Manipulation of Therapist	66%	34%	< .001
Suicidal Behaviour	29%	64%	< .001
Lack of Motivation	89%	70%	< .001
Self-Destructive Behaviour	53%	79%	< .001
Ambivalence to Therapy	82%	71%	.03
Lack of Insight	92%	68%	< .001
Not Developing Therapeutic Alliance	88%	70%	< .001

*Note.* PPD group *N* = 147 – 150; BPD group *N* = 128 – 132. The *p* represents the statistical significance of the mean differences between the psychopathic and borderline PD groups. All *p* values were derived from chi-squared tests of independence.

## **3.4. Features of Treatment**

### **3.4.1. Features of PPD Treatment**

As previously mentioned, the treatment variables were dichotomized for the purpose of analyses (see Table 8 and Appendix L). For example, the Forensic setting is comprised of the Forensic hospital, Outpatient forensic clinic, and Prison or correctional institution options. The Inpatient setting is comprised of the Hospital, Inpatient community clinic, Forensic hospital, and Prison or correctional settings. Length of treatment ( $\geq 1$  year versus  $< 1$  year) and Frequency of sessions ( $\geq 4$  Sessions per month versus  $< 4$  sessions per month) were also dichotomized for the purpose of analyses. The non-dichotomized presentation of these variables is presented in Appendix L.

With respect to features of treatment (Table 8), the results indicated that slightly more than half of PPD patients (57%) received therapy in a Forensic setting, and that the majority of patients (73%) were treated on an inpatient basis (Table 8). The majority of respondents treated their PPD patient from primarily a CBT-based orientation in individual therapy. Half of PPD group MHPs (47%) reported that they were able to treat their patient for more than a year and slightly more than half (61%) saw the patient at least once per week.

### **3.4.2. Features of BPD Treatment**

With respect to treatment features for the BPD group (see Table 8), the majority of BPD patients (89%) were treated in a Civil (rather than Forensic) context. BPD patients were also more likely to receive treatment on an outpatient, rather than inpatient basis. The majority of BPD group respondents treated their patient from a CBT-based orientation in individual therapy. Slightly more than half of BPD group (65%) reported that they were able to treat their patient for over a year and more than half (79%) saw the patient at least once per week.

**Table 8. Characteristics of Therapy Provided to Target Patient**

	Psychopathic PD		Borderline PD		<i>p</i>
	<i>N</i>	%	<i>N</i>	%	
Setting					
Forensic ( <i>vs. Civil</i> ) <sup>a</sup>	86	57%	14	11%	< .001
Inpatient ( <i>vs. Outpt.</i> )	110	73%	31	23%	< .001
CBT-Based Orientation	125	83%	104	79%	0.33
Individual Therapy Provided	128	87%	118	92%	0.13
Length of Treatment (≥1 year)	70	47%	86	65%	.002
Frequency of Sessions (4+ sessions per month)	92	61%	104	79%	.001

Note. <sup>a</sup>BPD group *N* =128. PPD group *N* =150, BPD group *N* =132 unless otherwise indicated. PD = personality disorder. CBT-Based = Cognitive behavioural therapy based treatment. The *p* represents the statistical significance of the mean differences between the psychopathic and borderline PD groups. All *p* values were derived from chi-squared tests of independence.

### 3.4.3. Comparison of PPD and BPD Treatment Features

Several of the differences between the PPD and BPD groups were significant. More PPD patients were treated in Forensic settings,  $\chi^2 (1, N = 282) = 66.99, p < .001, r = 0.49$ , and Inpatient settings,  $\chi^2 (1, N = 282) = 67.94, p < .001, r = 0.49$ . Conversely, more BPD patients were treated for longer than one year,  $\chi^2 (1, N = 282) = 9.71, p = .002, r = 0.19$ , and had more frequent sessions (at least four times per month),  $\chi^2 (1, N = 282) = 10.81, p = .001, r = 0.20$ . No significant differences were found regarding the type of theoretical orientation used to treat patients as the overwhelming majority of

respondents across groups reported the use of a CBT-based orientation,  $\chi^2(1, N = 282) = 0.95, p = 0.33, r = 0.06$ .

### 3.5. Treatment Outcomes

Embedded within the online survey were several questions that addressed overall improvement in personality disorder symptomatology due to treatment. First, MHPs were asked to make a global rating of overall change in the severity of their patients' personality disorder symptomatology by the end of treatment on a 7-point Likert scale (*Significantly improved to Significantly worse*). For the purpose of some analyses, this item was subsequently dichotomized (*No improvement versus Any improvement*).

Second, responses to questions about pre- and post-treatment severity of individual CAPP (and CABP) symptoms were used to create composite change scores. Specifically, change scores were calculated by subtracting final severity ratings (severity of the symptom at the end of treatment) from their initial severity rating (severity of the symptom at the beginning of treatment). Change scores for individual symptoms were then averaged to yield a total change score (based on all symptoms) and domain change scores (based on symptoms within each domain).

Third, MHPs were asked to make ratings of improvement due to treatment for each CAPP (or CABP) symptom on a 4-point Likert scale (*Not at all to A lot*). Improvement scores for individual symptoms were then averaged to yield a total improvement score (based on all symptoms) and domain improvement scores (based on symptoms within each domain).

Not surprisingly, these three sets of ratings were highly correlated. The correlations are presented in Appendix M (Tables M1 and M2) and Appendix O (Tables O1 and O2). Most were in the range of about  $r = .50$  to  $.85$ . I decided to focus my analyses on global ratings of overall improvement and composite change scores, ignoring the global ratings of symptom improvement. The reasons for this were as follows. First, the global rating of overall improvement may be considered more

subjective, or susceptible to response bias, as it asked MHPs not only to report the degree of change in symptomatology, but also was the change was due to. In contrast, the composite change scores may be considered somewhat more objective or less prone to response bias, as they were based on ratings of the severity of symptoms before and after treatment. Second, the frequency of missing data was higher for global ratings of symptom improvement than for composite change. Descriptive analyses of the global rating of symptom improvement are presented in Appendix O (Tables O3 and O4).

### **3.5.1. PPD Treatment Outcomes**

#### ***Global Rating of Treatment Outcome***

The majority of MHPs reported overall improvement of their patients ( $M = 4.99$ ,  $SD = 0.89$ ). After dichotomizing this variable (*No improvement* versus *Any improvement*), 77% of MHPs reported overall symptom improvement for their patients; of those MHPs who reported *No improvement*, only seven reported that their patients worsened during treatment (see Table 9 for a detailed breakdown of responses).

#### ***Composite Ratings of Change***

CAPP Total and domain change scores are presented in Table 10. As can be seen, symptoms generally were reported to change during treatment both overall and at the domain level. The mean change scores across all symptoms was  $M = 0.38$  ( $SD = 0.39$ ). At the domain level, the greatest change was reported for symptoms in the *Dominance* ( $M = 0.44$ ,  $SD = 0.49$ ) and *Behavioural* ( $M = 0.41$ ,  $SD = 0.49$ ) domains, while the *Cognitive* ( $M = 0.34$ ,  $SD = 0.44$ ) and *Attachment* ( $M = 0.33$ ,  $SD = 0.49$ ) domains were reported to change least.

All CAPP symptoms were reported to change (see Appendix N, Table N1 for individual CAPP symptom mean change ratings). Symptoms with the most reported change following treatment were *Self-justifying* ( $M = 0.59$ ,  $SD = 0.74$ ), *Aggressive* ( $M = 0.58$ ,  $SD = 0.86$ ), *Disruptive* ( $M = 0.54$ ,  $SD = 0.84$ ), and *Domineering* ( $M = 0.53$ ,  $SD =$

0.67). Items with the least amount of reported change were *Lacks anxiety* ( $M = 0.20$ ,  $SD = 0.53$ ), *Sense of uniqueness* ( $M = 0.19$ ,  $SD = 0.53$ ), *Restless* ( $M = 0.16$ ,  $SD = 0.40$ ), and *Lacks concentration* ( $M = 0.14$ ,  $SD = 0.34$ ).

### 3.5.2. BPD Treatment Outcomes

#### ***Global Rating of Treatment Outcome***

The majority of MHPs in the BPD group reported overall improvement in BPD symptoms ( $M = 5.69$ ,  $SD = 1.10$ ). Based on the dichotomized ratings, 90% of respondents reported overall improvement in their patient; of those who reported no improvement, only five reported that their patients' symptoms worsened with treatment (see Table 9 for a detailed breakdown of responses).

**Table 9. Comparison of Overall Treatment Outcome between PPD and BPD Groups**

	Psychopathic PD		Borderline PD	
	<i>N</i>	%	<i>N</i>	%
Significantly Improved	4	3%	33	26%
Moderately Improved	34	23%	14	32%
Slightly Improved	75	51%	40	32%
No Change	27	19%	8	6%
Slightly Worse	5	3%	4	3%
Moderately Worse	2	1%	1	1%
Significantly Worse	0	0%	0	0%

*Note.* PPD group  $N = 147$ ; BPD group  $N = 127$ .

### **Composite Ratings of Change**

The CABP Total score and domain change ratings for the BPD group are presented in Table 10. As can be seen, MHPs reported that symptoms generally changed during treatment overall (CABP Total,  $M = 0.64$ ,  $SD = 0.44$ ) and at the domain level. The greatest reported change occurred for symptoms in the *Emotional* ( $M = 0.87$ ,  $SD = 0.58$ ) and *Self* ( $M = 0.84$ ,  $SD = 0.66$ ) domains, whereas the *Dominance* ( $M = 0.44$ ,  $SD = 0.49$ ) and *Attachment* ( $M = 0.43$ ,  $SD = 0.46$ ) domains evidenced the least amount of reported change.

At the symptom level, all CABP items were reported to change, indicating that overall, all symptoms improved during treatment (see Appendix N, Table N2 for individual CABP item mean change rankings). Symptoms with the most amount of reported change during treatment were *Self-destructive* ( $M = 1.36$ ,  $SD = 1.02$ ), *Sad* ( $M = 1.07$ ,  $SD = 0.91$ ), *Lacks emotional stability* ( $M = 1.01$ ,  $SD = 0.74$ ) and *Self-critical* ( $M = 0.87$ ,  $SD = 0.81$ ). Items with the least amount of reported change were *Hyper-sexual* ( $M = 0.30$ ,  $SD = 0.69$ ), *Manipulative* ( $M = 0.29$ ,  $SD = 0.63$ ), *Detached* ( $M = 0.28$ ,  $SD = 0.59$ ) and *Deceitful* ( $M = 0.26$ ,  $SD = 0.56$ ).

### **3.5.3. Comparison of PPD and BPD Outcomes**

#### ***Global Rating of Treatment Outcome***

In both the PPD and BPD groups, MHPs reported that most of their patients improved as a result of treatment (Figure 6). An independent samples  $t$ -test indicated that the global rating of overall improvement for BPD patients was significantly greater than that for PPD patients,  $t(272) = 5.91$ ,  $p < .001$ . The BPD group also had greater reported improvement than did the PPD group according to the dichotomized version of this rating,  $\chi^2(1, N = 274) = 7.90$ ,  $p = .005$ .

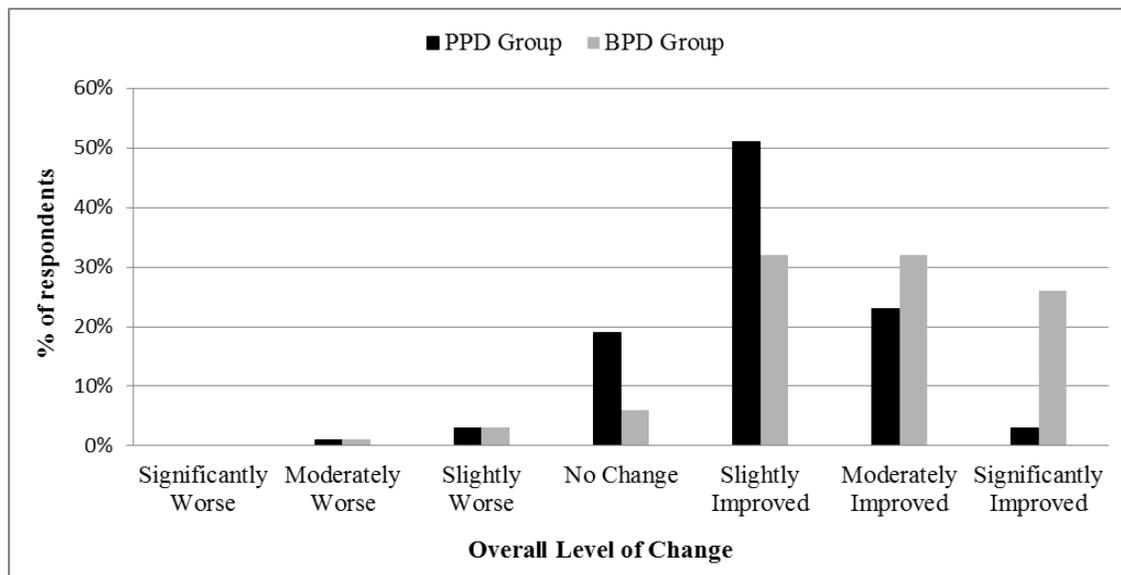


Figure 6. Comparison of overall change in personality disorder symptom severity across groups.

### Composite Ratings of Change

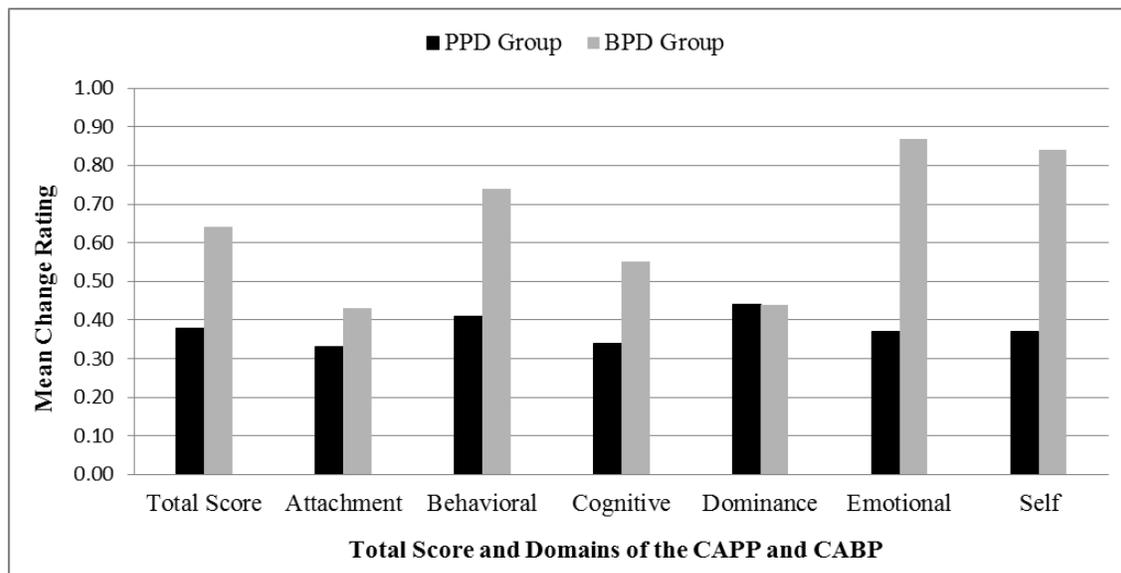
Independent sample *t*-tests were conducted to examine between group differences for CAPP versus CABP total change scores (see Table 10 and Figure 7). BPD patients evidenced significantly more improvement than PPD patients,  $t(277) = 5.18, p < .001, d = 0.63$ .

Independent sample *t*-tests were also conducted to compare the change scores for the 10 “overlapping” symptoms (i.e., those that appear in both the CAPP and the CABP). Significant differences in change scores across groups were observed for 4 of 10 symptoms. Specifically, MHPs in the BPD group reported significantly higher change scores for the symptoms *Lacks emotional stability*,  $t(272) = 6.12, p < .001, d = 0.74$ ; *Unstable self-concept*,  $t(264) = 7.13, p < .001, d = 0.87$ ; and *Suspicious*,  $t(267) = 3.19, p = .002, d = 0.39$ . Conversely, MHPs in the PPD group reported significantly higher change scores for the symptom *Deceitful*,  $t(270) = -2.94, p = .004, d = 0.36$ . There were no significant differences between the remaining six overlapping symptoms.

**Table 10. CAPP and CABP Symptom Change Ratings between PPD and BPD Groups**

	Psychopathic PD	Borderline PD
	<i>M (SD)</i>	<i>M (SD)</i>
Total Score	0.38 (0.39)	0.64 (0.44)
Attachment	0.33 (0.49)	0.43 (0.46)
Behavioural	0.41 (0.49)	0.74 (0.65)
Cognitive	0.34 (0.44)	0.55 (0.47)
Dominance	0.44 (0.49)	0.44 (0.49)
Emotional	0.37 (0.41)	0.87 (0.58)
Self	0.37 (0.44)	0.84 (0.66)

*Note.* PPD group  $N = 146 - 147$ ; BPD group  $N = 129 - 132$ . The values were calculated by dividing the number of items in each scale by the respective total means and standard deviations for comparison purposes.



*Figure 7.* Comparison between Change Scores on the CAPP and CABP across PPD and BPD Groups. Total Score = the total score of the CAPP change items for PPD group respondents and CABP total score of the change items for the BPD group respondents. All other categories are the subscales of the CAPP and CABP for the PPD group and BPD group, respectively.

### 3.6. Moderators of Treatment Outcome and Change

As previously mentioned, the current study evaluated two main treatment outcome variables (dependent variables). The first outcome measure was an item from the study that required respondents to rank the overall change in their patient’s symptom severity of PPD or BPD at the end of treatment. As noted earlier, this item was dichotomized (*Any improvement* versus *No improvement*) from the original 7-point rating; this item is referred to as Overall Improvement when described in the analyses below. Treatment outcomes were also measured in the present study by summing the individual change ratings made by respondents for each CAPP (or CABP in the BPD group) item, creating a CAPP (or CABP) Total change variable.

First, correlations between moderator variables and the two dependent variables were conducted. Results of the correlation analyses guided the selection of moderator variables that were entered into regression analyses; those variables which initially evidenced significant associations with the dependent variables via correlation results were included as moderators in the logistic and linear regressions. Regressions were then conducted between these two dependent variables and moderator variables from the following categories: a) prototypicality ratings, b) therapist attitudes, c) therapist attitudes about treating PPD or BPD, d) patient characteristics and therapy interfering behaviours and e) characteristics of the treatment; results are described in detail below.

### **3.6.1. Treatment Outcome Moderators: Prototypicality Ratings**

#### ***PPD Group***

I calculated the correlations between the mean prototypicality ratings for CAPP symptoms (see Appendix J, Table J1) and the mean change ratings for the corresponding symptoms (see Appendix N, Table N1). The prototypicality ratings were not significantly correlated with the change scores, though the correlation approached significance,  $r = .33$ ,  $p = .06$ .

#### ***BPD Group***

Next, I calculated the correlations between the mean prototypicality ratings for the 27 CABP symptoms (see Appendix J, Table J2) and the mean change scores for the same symptoms (see Appendix N, Table N2). Unlike in the PPD group, CABP prototypicality ratings significantly correlated with change ratings,  $r = .73$ ,  $p < .001$ .

### **3.6.2. Treatment Outcome Moderators: Respondent Attitudes**

#### ***PPD Group***

Pearson's  $r$  correlations were conducted to examine the relations between the two dependent variables (Overall Improvement and Total CAPP change ratings) and ratings of respondents' attitudes toward PPD patients. Specifically, APDQ Total and

domain scores, the item *“I feel psychopathic patients are treatable”*, and the four pre-treatment attitude questions about a specific patient were included in these analyses (see Table P3). Overall Improvement significantly correlated with the APDQ Total score,  $r = -.24, p < .01$ , and the *Loathing*,  $r = -.19, p < .05$ , *Rejection*,  $r = -.23, p < .01$ , and *Futility*,  $r = -.34, p < .01$ , domains. Overall Improvement also significantly correlated with the item *“I feel psychopathic patients are treatable,”*  $r = .33, p < .01$ . This pattern of results was consistent for the CAPP Total change scores dependent variable. CAPP Total change scores significantly correlated with the APDQ Total score,  $r = -.22, p < .01$ , *Loathing*,  $r = -.17, p < .05$ , *Rejection*,  $r = -.18, p < .05$ , and *Futility*,  $r = -.24, p < .01$ , domains, and with the individual treatment attitude item,  $r = -.26, p < .01$ . The CAPP change domains significantly correlated with a number of attitude moderators, which can be seen in detail in Table P3. Of note, there were no significant correlations between the pre-treatment attitude questions and Overall Improvement or CAPP change scores.

Logistic regression analyses were conducted to examine associations between Overall Improvement of symptoms and the APDQ Total score and domain ratings (and the additional attitude item) as moderators (Table 11). A test of the model using the APDQ Total score was significant; the overall model using APDQ domain ratings (and additional attitude item) as moderators was also significant. Results of the logistic regressions are presented in Table 11. As can be seen, the APDQ Total score was significant associated with the Overall Improvement ratings, as was the item *“I feel psychopathic patients are treatable”*. Next, linear regressions were conducted to examine associations between the CAPP Total change rankings using the aforementioned attitude moderators (Table 12). Again, the overall model using the APDQ Total score was significant, as was the model using APDQ domain ratings (and additional attitude item) as moderators. The APDQ Total score was significantly related to CAPP Total change ratings, as was the extra attitude item (*“I feel psychopathic patients are treatable”*), though no APDQ domain scores were significant moderators (see Table 12). These results indicate that a respondent’s attitude toward PPD patients influences treatment outcomes such that more negative, pessimistic global views of PPD were associated with poorer treatment outcomes with their actual patient.

## **BPD Group**

Pearson's  $r$  correlations were conducted to examine the relations between the dependent variables (Overall Improvement and Total CABP change ratings) and ratings of respondents' attitudes toward BPD patients. Specifically, APDQ Total and domain scores, the item "*I feel BPD patients are treatable*", and the four pre-treatment attitude questions about a specific patient were included in these analyses (see Table P4). Consistent with the PPD group, Overall Improvement significantly correlated with the APDQ Total score,  $r = -.25$ ,  $p < .01$ , and the *Loathing*,  $r = -.26$ ,  $p < .01$ , and *Futility*,  $r = -.26$ ,  $p < .01$ , domains. Overall Improvement also significantly correlated with one pre-treatment patient attitude item, "*Initially, how treatable did you think this patient was*",  $r = .18$ ,  $p < .05$ . This pattern of results was largely consistent for the CABP Total change scores dependent variable, though these correlations were not as strong. CABP Total change scores significantly correlated with the APDQ Total score,  $r = -.20$ ,  $p < .05$ , *Loathing*,  $r = -.20$ ,  $p < .05$ , and *Futility*,  $r = -.20$ ,  $p < .05$ , domains. The CABP Total change scores did not significantly correlate with pre-treatment attitude questions. The CABP change domains significantly correlated with a number of attitude moderators (see Table P4).

Logistic regression analyses were conducted to examine associations between Overall Improvement of symptoms and the APDQ Total score and domain ratings (and the additional attitude item) as moderators (Table 13). Tests of the model using the APDQ Total score and APDQ domain scores (plus the additional attitude item), were both significant. Results of the logistic regressions are presented in Table 13. As can be seen, the APDQ Total score, *Loathing* and *Rejection* domains were all significantly associated with Overall Improvement ratings. Of note, however, the *Rejection* domain was significant in the positive direction,  $B = .81$ ,  $p = .02$ ,  $Exp(B) = 2.25$ . This  $Exp(B)$  of 2.25 indicates that respondents who harbored greater rejecting attitudes toward BPD patients in general (e.g., intolerance, irritation, anger) were twice as likely to observe overall improvement in their patients.

Next, linear regressions were conducted to examine associations between the CABP Total change rankings using the aforementioned attitude moderators (Table 14). Again, the overall model using the APDQ Total score was significant, as was the model using APDQ domain ratings (and additional attitude item) as moderators. The APDQ Total score was significantly associated with CABP Total change ratings, as was the APDQ *Vulnerability* and *Rejection* domain scores (see Table 14). Again, the relation between the APDQ *Rejection* domain and CABP change ratings was significant in the positive direction. These results are somewhat mixed given this finding regarding the APDQ *Rejection* domain. As with the PPD group, more pessimistic global views of BPD was associated with poorer treatment outcomes with an actual patient; however, more rejecting attitudes of BPD patients was related to better treatment outcomes with actual patients.

### **3.6.3. Treatment Outcome Moderators: Therapist Characteristics**

#### ***PPD Group***

Pearson's  $r$  correlations were calculated to examine the relations between the two dependent variables and the demographic and therapeutic experience characteristics of respondents. The respondent's age, gender, level of training (dichotomized as doctoral level or not) length of time practicing therapy (dichotomized at 10 years), total number of patients (dichotomized at 100 patients), Forensic (vs. Civil) work setting, Inpatient (vs. Outpatient) work setting, number of PPD patients treated over their career (dichotomized 50 patients), and receipt of any PPD specific clinical training (yes or no) were included in these analyses (see Table P5). Overall Improvement was only significantly correlated with working primarily in a Forensic Setting,  $r = .19, p < .05$ .

CAPP Total change scores significantly correlated with length of practice,  $r = .20, p < .05$ , and total number of patients,  $r = .17, p < .05$ . The CAPP change domains significantly correlated with a number of therapist characteristics moderator variables, which can be seen in detail in Table P5. There were no significant correlations between

the dependent variables and therapist's gender, level of training, total number of PPD patients, or Inpatient work setting.

**Table 11. *Logistic Regression Results: Association of Overall Symptom Improvement with Attitude Ratings in the PPD Group***

	<i>B</i>	[SE]	Wald	<i>p</i>	Exp ( <i>B</i> )
<b>Overall</b>	Model fit: $\chi^2 (1) = 8.65, p = <.01, \text{Nagelkerke Pseudo-}R^2 = .09$				
APDQ Total	-.05	[.02]	7.79	<.01	.95
<b>Domains</b>	Model fit: $\chi^2 (6) = 29.80, p = <.001, \text{Nagelkerke Pseudo-}R^2 = .28$				
Loathing	.03	[.02]	.55	.46	1.03
Vulnerability	.15	[.04]	3.05	.08	1.17
Rejection	-.30	[.18]	2.72	.10	.74
Futility	-.40	[.17]	5.88	.02	0.67
Exhaustion	-.03	[.17]	.04	.85	.97
PPD Treatable	1.49	[.58]	6.60	.01	4.42

*Note.* *N* = 147. *B* = unstandardized beta. SE = standard error of the partial slope coefficient. *Exp(B)* = the odds ratio. The overall model statistics are the same for all subscale analyses (and the added PPD Treatable item) and thus, are not repeated. Each row represents a different logistic regression. Moderators are listed in the first column. APDQ = *Attitudes to Personality Disorders Questionnaire*. Below the APDQ Total are the APDQ domain scales and the additional attitude item PPD Treatable = the survey item '*I feel psychopathic patients are treatable*'.

**Table 12. Linear Regression Results: Association of CAPP Total Change Rating with Attitude Ratings in the PPD Group**

	<i>B</i>	[SE]	$\beta$	<i>t</i>	<i>p</i>
<b>Overall</b>	Model fit: $F(1,145) = 7.59, p = <.01, R^2 = .05$				
APDQ Total	-.01	[< .01]	-.22	-2.76	< .01
<b>Domains</b>	Model fit: $F(6,140) = 2.38, p = .03, R^2 = .09$				
Loathing	< .01	[.01]	-.01	-.05	.96
Vulnerability	< .01	[.01]	< -.01	-.02	.99
Rejection	-.01	[.03]	-.05	-.44	.66
Futility	-.03	[.02]	-.14	-1.32	.19
Exhaustion	-.01	[.03]	-.02	-.23	.82
PPD Treatable	.13	[.06]	.18	1.99	.05

*Note.*  $N = 146$ . *B* = unstandardized beta.  $\beta$  = standardized beta. SE = standard error. The overall model statistics are the same for all subscale analyses (and the added PPD Treatable item) and thus, are not repeated. Each row represents a different linear regression. Moderators are listed in the first column. APDQ = *Attitudes to Personality Disorders Questionnaire*. Below the APDQ Total are the APDQ domain scales and the additional attitude item PPD Treatable = the survey item 'I feel psychopathic patients are treatable'.

**Table 13. Logistic Regression Results: Association of Overall Symptom Improvement with Attitude Ratings in the BPD Group**

	<i>B</i>	[SE]	Wald	<i>p</i>	Exp ( <i>B</i> )
<b>Overall</b>	Model fit: $\chi^2 (1) = 7.61, p = <.01, \text{Nagelkerke Pseudo-}R^2 = .12$				
APDQ Total	-.07	.03	7.17	< .01	.93
<b>Domains</b>	Model fit: $\chi^2 (6) = 17.70, p = <.01, \text{Nagelkerke Pseudo-}R^2 = .27$				
Loathing	-.12	[.06]	4.12	.04	.89
Vulnerability	-.19	[.13]	2.06	.15	.83
Rejection	.81	[.35]	5.50	.02	2.25
Futility	-.62	[.33]	3.63	.06	.54
Exhaustion	-.14	[.29]	.24	.63	.87
BPD Treatable	-.06	[.65]	.01	.92	.94

*Note.*  $N = 127$ . *B* = unstandardized beta. SE = standard error of the partial slope coefficient. *Exp(B)* = the odds ratio. The overall model statistics are the same for all subscale analyses (and the added BPD Treatable item) and thus, are not repeated. Each row represents a different logistic regression. Moderators are listed in the first column. APDQ = *Attitudes to Personality Disorders Questionnaire*. Below the APDQ Total are the APDQ domain scales and the additional attitude item BPD Treatable = the survey item 'I feel BPD patients are treatable'.

**Table 14. Linear Regression Results: Association of CABP Total Change Rating with Attitude Ratings in the BPD Group**

	<i>B</i>	[SE]	$\beta$	<i>t</i>	<i>p</i>
<b>Overall</b>	Model fit: $F(1,129) = 5.09, p = .03, R^2 = .04$				
APDQ Total	-.01	[< .01]	-.20	-2.26	.03
<b>Domains</b>	Model fit: $F(6,124) = 3.03, p = <.01, R^2 = .13$				
Loathing	-.01	[.01]	-.15	-1.35	.18
Vulnerability	-.03	[.01]	-.23	-2.12	.04
Rejection	.11	[.04]	.36	3.18	< .01
Futility	-.06	[.04]	-.17	-1.53	.13
Exhaustion	< -.01	[.04]	< -.01	-.04	.97
PPD Treatable	.05	[.07]	.06	.63	.53

*Note.*  $N = 130$ .  $B$  = unstandardized beta.  $\beta$  = standardized beta. SE = standard error. The overall model statistics are the same for all subscale analyses (and the added BPD Treatable item) and thus, are not repeated. Each row represents a different linear regression. Moderators are listed in the first column. APDQ = *Attitudes to Personality Disorders Questionnaire*. Below the APDQ Total are the APDQ domain scales and the additional attitude item BPD Treatable = the survey item 'I feel BPD patients are treatable'.

Logistic regression analyses were conducted to examine associations between Overall Improvement of symptoms and selected therapist characteristics variables (Table 15). The list of therapist characteristics variables was narrowed for the logistic regression based on the correlation results and by examining how correlated moderator items were with one another. A test of the overall model was not significant. None of the subsequent regression results were significant either (Table 15).

A linear regression was conducted to examine associations between the CAPP Total change rankings using the same therapist characteristics (Table 16). Again, the overall model was not significant. Further, none of the individual therapist characteristics were significantly related to CAPP Total change rankings (see Table 16). These results indicate that neither respondent's demographic characteristics, nor their previous therapeutic experiences, appear to have impacted the therapeutic outcomes with their PPD patient.

### ***BPD Group***

Pearson's  $r$  correlations were calculated to examine the relations between the two dependent variables and the demographic and therapeutic experience characteristics of BPD group respondents. The respondent's age, gender, level of training (dichotomized as doctoral level or not) length of time practicing therapy (dichotomized at 10 years), total number of patients (dichotomized at 100 patients), Forensic (vs. Civil) work setting, Inpatient (vs. Outpatient) work setting, number of BPD patients treated over their career (dichotomized 50 patients), and receipt of any BPD specific clinical training (yes or no) were included in these analyses (see Table P6).

**Table 15. Logistic Regression Results: Association of Overall Symptom Improvement with Therapist Characteristics in the PPD Group**

	<i>B</i>	[SE]	Wald	<i>p</i>	Exp ( <i>B</i> )
Age	.03	[.03]	1.18	.28	1.03
Length Practicing	.37	[.65]	.33	.57	1.45
Prim. Work Setting					
Forensic (vs. Civil)	1.08	[.57]	3.62	.06	2.95
Inpatient (vs. Out)	.33	[.53]	.38	.54	1.39
Number of PPD Pts.	-.33	[.53]	.38	.54	.72
Specialty Training	-.22	[.45]	.25	.62	.80

*Note.* *N* = 146. Model fit:  $\chi^2(6) = 11.43$ , *p* = .08, Nagelkerke Pseudo-*R*<sup>2</sup> = .12. *B* = unstandardized beta. SE = standard error of the partial slope co-efficient. *Exp(B)* = the odds ratio. The overall model statistics are the same for all variables and thus, are not repeated. Each row represents a different logistic regression. Moderators are listed in the first column. The following moderators were dichotomized: Length practicing = practicing therapy for ≥ 10 years vs. < 10 years; Forensic (vs. Civil) = primarily work in a Forensic, rather than Civil setting; Inpatient (vs. Out) = primarily work in an Inpatient, rather than Outpatient setting; Number of PPD Pts. = treated > 50 PPD patients vs. treated ≤ 50 PPD patients; Specialty Training = did the respondent receive specialty training on PPD (yes vs. no).

**Table 16. Linear Regression Results: Association of CAPP Total Change Rating with Therapist Characteristics in the PPD Group**

	<i>B</i>	[SE]	$\beta$	<i>t</i>	<i>p</i>
Age	< -.01	[< .01]	-.05	-.42	.68
Length Practicing	.15	[.10]	.19	1.51	.13
Prim. Work Setting					
Forensic (vs. Civil)	.05	[.09]	.07	.58	.56
Inpatient (vs. Out)	-.10	[.09]	-.12	-1.05	.30
Number of PPD Pts.	.02	[.08]	.02	.19	.85
Specialty Training	.09	[.07]	.11	1.23	.22

*Note.*  $N = 145$ . Model fit:  $F(6,139) = 1.41$ ,  $p = .21$ ,  $R^2 = .06$ .  $B$  = unstandardized beta.  $\beta$  = standardized beta. SE = standard error. The overall model statistics are the same for all analyses and thus, are not repeated. Each row represents a different linear regression. Moderators are listed in the first column. The following moderators were dichotomized: Length practicing = practicing therapy for  $\geq 10$  years vs.  $< 10$  years; Forensic (vs. Civil) = primarily work in a Forensic, rather than Civil setting; Inpatient (vs. Out) = primarily work in an Inpatient, rather than Outpatient setting; Number of PPD Pts. = treated  $> 50$  PPD patients vs. treated  $\leq 50$  PPD patients; Specialty Training = did the respondent receive specialty training on PPD (yes vs. no).

Overall Improvement was not significantly correlated with any of the therapist characteristics variables. The CABP Total change score significantly correlated with therapist's age,  $r = .24, p < .01$ , length of time practicing therapy,  $r = .24, p < .01$ , total number of patients,  $r = .29, p < .01$ , number of BPD patients treated,  $r = .23, p < .01$ , and whether they received specialty training for working with BPD patients,  $r = .24, p < .01$ . The CABP change domains significantly correlated with a number of therapist characteristics moderator variables, which can be seen in detail in Table P6. There were no significant correlations between the dependent variables and therapist's gender, level of training or Inpatient work setting.

Logistic regression analyses were conducted to examine the relations between Overall Improvement of symptoms and selected therapist characteristics variables (Table 17). The list of therapist characteristics variables was narrowed for the logistic regression based on the correlation results and by examining how correlated moderator items were with one another. The BPD group moderators were identical to PPD group moderators for comparison purposes. Like the PPD group, a test of the overall model was not significant. None of the subsequent regression results were significant either (see Table 17).

A linear regression was conducted to assess the relations between the CABP Total change rankings using the same attitude moderators (Table 18). The overall model of the linear regression was significant. Further, working in a Forensic Setting (rather than a Civil setting) was significantly associated with a change in CABP symptoms. This result indicates that better therapeutic outcomes occurred for patients when the therapist worked in a civil, rather than a forensic setting. Having received specialty training on working with BPD patients was also significantly associated with Total CABP symptom improvement. Overall, these results indicate that therapists who worked in civil settings and received specific training for working with BPD patients evidenced better treatment outcomes with their patients.

**Table 17. Logistic Regression Results: Association of Overall Symptom Improvement with Therapist Characteristics in the BPD Group**

	<i>B</i>	[SE]	Wald	<i>p</i>	Exp ( <i>B</i> )
Age	-.04	[.04]	1.14	.29	.96
Length Practicing	.74	[1.07]	.48	.49	2.11
Prim. Work Setting					
Forensic (vs. Civil)	.61	[1.14]	.29	.59	1.84
Inpatient (vs. Out)	-.80	[.69]	1.35	.25	.45
Number of PPD Pts.	.81	[.86]	.89	.35	2.25
Specialty Training	.74	[.66]	1.27	.26	2.09

*Note.*  $N = 126$ . Model fit:  $\chi^2 (6) = 6.03$ ,  $p = .42$ , Nagelkerke Pseudo- $R^2 = .10$ .  $B$  = unstandardized beta. SE = standard error of the partial slope co-efficient.  $Exp(B)$  = the odds ratio. The overall model statistics are the same for all and thus, are not repeated. Each row represents a different logistic regression. Moderators are listed in the first column. The following moderators were dichotomized: Length practicing = practicing therapy for  $\geq 10$  years vs.  $< 10$  years; Forensic (vs. Civil) = primarily work in a Forensic, rather than Civil setting; Inpatient (vs. Out) = primarily work in an Inpatient, rather than Outpatient setting; Number of BPD Pts. = treated  $> 50$  BPD patients vs. treated  $\leq 50$  BPD patients; Specialty Training = did the respondent receive specialty training on BPD (yes or no).

**Table 18. Linear Regression Results: Association of CABP Total Change Rating with Therapist Characteristics in the BPD Group**

	<i>B</i>	[SE]	$\beta$	<i>t</i>	<i>p</i>
Age	< .01	[.01]	.10	.80	.42
Length Practicing	.11	[.12]	.13	.99	.32
Prim. Work Setting					
Forensic (vs. Civil)	-.23	[.11]	-.18	-2.07	.04
Inpatient (vs. Out)	.01	[.09]	.01	.09	.93
Number of PPD Pts.	.10	[.09]	.11	1.18	.24
Specialty Training	.19	[.09]	.19	2.05	.04

*Note.*  $N = 130$ . Model fit:  $F(6,124) = 3.64$ ,  $p = <.01$ ,  $R^2 = .15$ .  $B$  = unstandardized beta.  $\beta$  = standardized beta. SE = standard error. The overall model statistics are the same for all analyses and thus, are not repeated. Each row represents a different linear regression. Moderators are listed in the first column. The following moderators were dichotomized: Length practicing = practicing therapy for  $\geq 10$  years vs.  $< 10$  years; Forensic (v. Civil) = primarily work in a Forensic, rather than Civil setting; Inpatient (v. Out) = primarily work in an Inpatient, rather than Outpatient setting; Number of BPD Pts. = treated  $> 50$  BPD patients vs. treated  $\leq 50$  BPD patients; Specialty Training = did the respondent receive specialty training on BPD (yes vs. no).

### 3.6.4. Treatment Outcome Moderators: Patient Characteristics

#### *PPD Group*

Pearson's  $r$  correlations were calculated to examine the relations between the two dependent variables and individual characteristics of the target patient selected by respondents. The patient's gender and age were entered into correlation analyses, in addition to variables identifying if the patient was taking any psychotropic medications to manage their PPD, whether the patient had a comorbid serious mental illness (SMI) and whether they had strong social supports in the community. For the purpose of this study, SMI was operationally defined as having a diagnosis of a psychotic disorder, bipolar disorder or major depressive disorder.

The Overall Improvement dependent variable was only significantly correlated with the Social Supports variable in the PPD group,  $r = -.18$ ,  $p < .05$ . It should be noted that this correlation is in the negative direction, meaning that PPD patients who lacked strong social supports were more likely to evidence overall symptom improvement from therapy. This result was identical when comparing the patient characteristic moderator variables to the CAPP Total change score,  $r = -.18$ ,  $p < .05$ . The CAPP Total change score did not significantly correlated with any of the other moderator variables (see Table P7). The CAPP *Attachment*, *Behavioural* and *Cognitive* change domains also significantly correlated with the social supports (negatively), which can be seen in detail in Table P7. There were no significant correlations between the dependent variables and the patient's age, gender, presence of a comorbid SMI or use of psychotropic medication.

Logistic regression analyses were conducted to assess the relations between Overall Improvement of symptoms and selected patient variables (Table 19). The list of patient variables was narrowed for the logistic regression based on the correlation results and by examining how correlated moderator items were with one another. A test of the overall model was not significant. Of the three moderators, only the Social Supports variable was significantly related to Overall Improvement (see Table 19). The  $Exp(B)$  of .40 indicates that patients without strong social support were 2.5 times more

likely to benefit from therapy than those with strong supports. Results of the linear regression using the CAPP Total change rating as the dependent variable were not significant (Table 20). Specifically, the overall model was not significant, nor were any of the regression results; however, Social Supports approached significance,  $\beta = -.13$ ,  $p = .06$ . As a whole, these results indicate that the only PPD patient characteristic that influenced treatment outcomes significantly in this study was a patient's lack of social supports.

### ***BPD Group***

Pearson's  $r$  correlations were calculated to examine the relations between the two dependent variables and individual characteristics of the target patient selected by respondents in the BPD group as well; the same moderators described above for the PPD group were used. The Overall Improvement dependent variable did not significantly correlate with any of the moderator variables. The CABP Total change was significantly correlated with only the comorbid serious mental illness (SMI) variable,  $r = -.30$ ,  $p < .01$  (see Table P8). All CABP change domain scores, except the Dominance domain, were significantly correlated with comorbid SMI as well (Table P8). There were no significant correlations between the dependent variables and the remaining moderator variables.

Logistic regression analyses were conducted to examine the associations between Overall Improvement of symptoms and selected patient variables (Table 21). The list of patient variables was narrowed for the logistic regression based on the correlation results and by examining how correlated moderator items were with one another. A test of the overall model was not significant. None of the moderator variables significantly related to change in the Overall Improvement outcome (see Table 21). Results of the linear regression using the CAPP Total change rating as the dependent variable were significant (Table 22). Specifically, the overall model was significant and the SMI was significantly associated with CABP Total change ratings. Results indicate that BPD patients with a comorbid SMI did not improve as much in treatment for BPD as patients without a comorbid SMI.

**Table 19. Logistic Regression Results: Association of Overall Symptom Improvement with Patient Characteristics in the PPD Group**

	<i>B</i>	[SE]	Wald	<i>p</i>	Exp ( <i>B</i> )
Age	-.01	[.02]	.14	.71	.99
Serious MI	-.04	[.46]	.01	.94	.97
Social Supports	-.92	[.41]	5.00	.03	.40

*Note.* *N* = 143. Model fit:  $\chi^2 (3) = 5.67$ , *p* = .13, Nagelkerke Pseudo- $R^2 = .06$ . *B* = unstandardized beta. SE = standard error of the partial slope co-efficient. *Exp(B)* = the odds ratio. The overall model statistics are the same for all and thus, are not repeated. Each row represents a different logistic regression. Moderators are listed in the first column. Serious MI = the patient had a comorbid diagnosis of serious mental illness (bipolar disorder, a psychotic disorder or major depressive disorder). Social supports = the patient had strong social supports.

**Table 20. Linear Regression Results: Association of CAPP Total Change with Patient Characteristics in the PPD Group**

	<i>B</i>	[SE]	$\beta$	<i>t</i>	<i>p</i>
Age	< -.01	[< .01]	-.11	-1.33	.19
Serious MI	-.06	[.08]	-.07	-.82	.41
Social Supports	-.13	[.07]	-.16	-1.90	.06

*Note.* *N* = 142. Model fit:  $F (3,139) = 2.52$ , *p* = .06,  $R^2 = .05$ . *B* = unstandardized beta.  $\beta$  = standardized beta. SE = standard error. The overall model statistics are the same for all analyses and thus, are not repeated. Each row represents a different linear regression. Moderators are listed in the first column. Serious MI = the patient had a comorbid diagnosis of serious mental illness (bipolar disorder, a psychotic disorder or major depressive disorder). Social supports = the patient had strong social supports.

**Table 21. Logistic Regression Results: Association of Overall Symptom Improvement with Patient Characteristics in the BPD Group**

	<i>B</i>	[SE]	Wald	<i>p</i>	Exp ( <i>B</i> )
Age	< .01	[.03]	< .01	.98	1.00
Serious MI	-1.03	[.60]	2.96	.09	.36
Social Supports	.19	[.61]	.10	.75	1.21

*Note.* *N* = 126. Model fit:  $\chi^2 (3) = 3.14$ ,  $p = .37$ , Nagelkerke Pseudo- $R^2 = .05$ . *B* = unstandardized beta. SE = standard error of the partial slope co-efficient. *Exp(B)* = the odds ratio. The overall model statistics are the same for all and thus, are not repeated. Each row represents a different logistic regression. Moderators are listed in the first column. Serious MI = the patient had a comorbid diagnosis of serious mental illness (bipolar disorder, a psychotic disorder or major depressive disorder). Social supports = the patient had strong social supports.

**Table 22. Linear Regression Results: Association of CABP Total Change with Patient Characteristics in the BPD Group**

	<i>B</i>	[SE]	$\beta$	<i>t</i>	<i>p</i>
Age	< -.01	[< .01]	-.04	-.47	.64
Serious MI	-.26	[.08]	-.28	-3.33	.001
Social Supports	.04	[.07]	.05	.53	.59

*Note.* *N* = 130. Model fit:  $F (3,127) = 4.09$ ,  $p = <.01$ ,  $R^2 = .09$ . *B* = unstandardized beta.  $\beta$  = standardized beta. SE = standard error. The overall model statistics are the same for all analyses and thus, are not repeated. Each row represents a different linear regression. Moderators are listed in the first column. Serious MI = the patient had a comorbid diagnosis of serious mental illness (bipolar disorder, a psychotic disorder or major depressive disorder). Social supports = the patient had strong social supports.

### **3.6.5. Treatment Outcome Moderators: Challenging Patient Behaviour**

#### ***PPD Group***

Pearson's  $r$  correlations were calculated to examine the relations between the two dependent variables and therapy interfering behaviours assessed in the survey. These variables and correlations with the dependent variables are presented in Table P9. The Overall Improvement dependent variable significantly, and negatively, correlated with patient Non-attendance,  $r = -.28$ ,  $p < .01$ , patient Manipulation of the therapist,  $r = -.16$ ,  $p < .05$ , and patient Lack of Motivation to engage in therapy,  $r = -.19$ ,  $p < .05$ . These results were consistent when CAPP Total change scores were used as the dependent variable; however, in addition to significant associations with Non-attendance,  $r = -.17$ ,  $p < .05$ , Manipulation of the therapist,  $r = -.26$ ,  $p < .01$ , and Lack of Motivation to engage in the therapeutic session,  $r = -.26$ ,  $p < .01$ , CAPP Total change scores also significantly correlated with patient Self-destructive behaviours,  $r = .24$ ,  $p < .01$ , and patient Suicidal behaviour,  $r = .27$ ,  $p < .01$ . The positive direction of these former correlations suggests that more Self-destructive or Suicidal patients evidence greater improvement in CAPP change variables over time. The CAPP Total change score did not significantly correlated with any of the other moderator variables. Several of the original therapy interfering behaviours did not significantly correlate with the treatment outcome variables; these items were: Patient does not complete homework, Patient does not engage in session discussions, Anger or aggressiveness in session, Patient ambivalence regarding treatment, Lack of insight into mental health issues and Failure to develop a therapeutic alliance. Several of the CAPP change domain scores significantly correlated with Non-attendance, Manipulation of the therapist, Suicidal behaviour and Lacks motivation and these results are presented in Table P9.

Logistic regression analyses were conducted to examine associations between the Overall Improvement of symptoms and selected patient variables (Table 23). The list of patient variables was narrowed for the logistic regression based on the correlation results and by examining how correlated moderator items were with one another. Also, though Lack of Motivation was strongly correlated with outcome measures, the

distribution of this variable was quite skewed (89% endorsement rate), and as such, this variable was not included in regression analyses. A test of the overall model was significant. Of the five moderators (Non-attendance, Failure to engage in session discussion, Manipulation of the therapist, Suicidal behaviour and Self-destructive behaviour), only Non-attendance was significantly related to Overall Improvement (see Table 23). The  $Exp(B)$  of .28 indicates that patients who attended sessions regularly were 3.6 times more likely to benefit from therapy than those who did not attend sessions on a regular basis.

**Table 23. Logistic Regression Results: Association of Overall Symptom Improvement with Patient Challenging Behaviour in the PPD Group**

	<i>B</i>	[SE]	Wald	<i>p</i>	<i>Exp (B)</i>
Non-attendance	-1.30	[.46]	7.85	< .01	.28
No Discuss	-.35	[.48]	.53	.47	.71
Manipulate	-.74	[.50]	2.24	.14	.48
Suicidal	.68	[.57]	1.42	.23	1.98
Self-Destructive	.54	[.48]	1.29	.26	1.71

*Note.*  $N = 144$ . Model fit:  $\chi^2 (5) = 19.21$ ,  $p = <.01$ , Nagelkerke Pseudo- $R^2 = .19$ .  $B$  = unstandardized beta. SE = standard error of the partial slope co-efficient.  $Exp(B)$  = the odds ratio. The overall model statistics are the same for all and thus, are not repeated. Each row represents a different logistic regression. Moderators are listed in the first column. Non-attendance = patient did not attend sessions regularly; No Discuss = patient did not engage in session discussions; Manipulate = patient was manipulative during session, Suicidal = patient had suicidal behaviours; Self-Destructive = patient engaged in self-destructive behaviours.

Results of the linear regression using the CAPP Total change rating as the dependent variable were not consistent with the logistic regression results. First, the overall model was significant. As can be seen in Table 24, Manipulation of the therapist,  $\beta = -.25$ ,  $t(143) = -3.17$ ,  $p < .01$ , and Suicidal behaviour,  $\beta = .25$ ,  $t(143) = 2.87$ ,  $p < .01$ , were both significantly associated with CAPP Total symptom change. The relation between patient Non-attendance and the CAPP Total change score approached significance,  $\beta = -.15$ ,  $p = .07$ . Of note, the association between Suicidal behaviour and CAPP Total change score was positive, again suggesting that those individuals with more suicidal behaviours evidenced more symptoms improvement than those individuals who did not engage in suicidal behaviour. Broadly, these results suggest that patients who attended sessions regularly, engaged in the therapeutic process and did not monopolize, or attempt to control therapy sessions, evidenced the most improvement in PPD symptomology.

**Table 24.** *Linear Regression Results: Association of CAPP Total Change with Patient Challenging Behaviour in the PPD Group*

	<i>B</i>	[SE]	$\beta$	<i>t</i>	<i>p</i>
Non-attendance	-.13	[.07]	-.15	-1.84	.07
No Discuss	-.02	[.07]	-.03	-.31	.75
Manipulate	-.20	[.06]	-.25	-3.17	.002
Suicidal	.21	[.07]	.25	2.87	.005
Self-Destructive	.11	[.07]	.14	1.58	.12

*Note.*  $N = 143$ . Model fit:  $F(5,138) = 6.60$ ,  $p = <.001$ ,  $R^2 = .19$ . *B* = unstandardized beta.  $\beta$  = standardized beta. SE = standard error. The overall model statistics are the same for all analyses and thus, are not repeated. Each row represents a different linear regression. Moderators are listed in the first column. Non-attendance = patient did not attend sessions regularly; No Discuss = patient did not engage in session discussions; Manipulate = patient was manipulative during session, Suicidal = patient had suicidal behaviours; Self-Destructive = patient engaged in self-destructive behaviours.

## **BPD Group**

Pearson's  $r$  correlations were calculated to examine the relations between the two dependent variables and therapy interfering behaviours assessed in the survey. These variables and correlations with the dependent variables are presented in Table P10. The Overall Improvement dependent variable significantly, and negatively, correlated with patient manipulation of the therapist,  $r = -.20$ ,  $p < .05$ . The CABP Total change scores correlated significantly with Failure to engage in session discussion,  $r = .25$ ,  $p < .01$ , Patient self-destructive behaviours,  $r = .20$ ,  $p < .05$ , and Patient suicidal behaviour,  $r = .18$ ,  $p < .05$ . The positive direction of these correlations with CABP Total change scores suggests that more self-destructive or suicidal patients who struggled to engage in session discussions evidenced greater improvement in CABP change variables by the end of therapy. The CABP Total change score did not significantly correlate with any of the other moderator variables. Several of the therapy interfering behaviours did not significantly correlate with either of the dependent variables; these behaviours were: Patient non-attendance, Patient does not complete homework, Patient does not engage in session discussions, Anger or aggression in session, Patient ambivalence regarding treatment, Lack of insight into mental health issues and Failure to develop a therapeutic alliance. Several of the CABP change domain scores significantly correlated with Non-attendance, Manipulation of the therapist, Suicidal behaviour and Lacks motivation; these results are presented in Table P10.

Logistic regression analyses were conducted to examine associations between Overall Improvement of symptoms and selected patient variables (Table 25). Though Self-destructive behaviour was correlated with CABP Total change, the distribution of this variable was quite skewed (79% endorsement rate), and as such, this variable was not included in regression analyses. A test of the overall model was not significant. Though Manipulation of the therapist approached significance,  $B = -1.20$ ,  $p = .06$ ,  $Exp(B) = .30$ , none of the moderators were significantly associated with BPD Overall Improvement.

**Table 25. Logistic Regression Results: Association of CABP Total Change Rating with Patient Challenging Behaviour in the BPD Group**

	<i>B</i>	[SE]	Wald	<i>p</i>	Exp ( <i>B</i> )
Non-attendance	-.85	[.62]	1.86	.17	.43
No Discuss	.01	[.69]	< .001	.99	1.01
Manipulate	-1.20	[.63]	3.64	.06	.30
Suicidal	-.91	[.82]	1.23	.27	.40

*Note.*  $N = 125$ . Model fit:  $\chi^2 (4) = 8.92$ ,  $p = .06$ , Nagelkerke Pseudo- $R^2 = .14$ .  $B$  = unstandardized beta. SE = standard error of the partial slope co-efficient.  $Exp(\beta)$  = the odds ratio. The overall model statistics are the same for all and thus, are not repeated. Each row represents a different logistic regression. Moderators are listed in the first column. Non-attendance = patient did not attend sessions regularly; No Discuss = patient did not engage in session discussions; Manipulate = patient was manipulative during session, Suicidal = patient had suicidal behaviours.

Results of the linear regression using the CABP Total change rating as the dependent variable are presented in Table 26. The overall model was significant. In addition, Failure to Engage in Session Discussion was significantly associated with CABP Total change,  $\beta = .24$ ,  $t (128) = 2.74$ ,  $p < .01$ . Of note, the association between Failure to Engage in Session Discussion and CABP Total change was positive, suggesting that those individuals who perhaps initially would not engage with the therapist made more therapeutic progress by the end of treatment than those who did engage in therapy from the beginning. This result could be explained by the fact that perhaps these individuals started at a higher symptom severity and thus their change scores were greater than an individual who started out with less severe BPD symptoms.

**Table 26. Linear Regression Results: Association of CABP Total Change Rating with Patient Challenging Behaviour in the BPD Group**

	<i>B</i>	[SE]	$\beta$	<i>t</i>	<i>p</i>
Non-attendance	-.09	[.08]	-.09	-1.06	.29
No Discuss	.26	[.09]	.24	2.74	< .01
Manipulate	-.11	[.08]	-.11	-1.29	.20
Suicidal	.16	[.08]	.17	1.93	.06

*Note.*  $N = 128$ . Model fit:  $F(4,124) = 3.31$ ,  $p = .01$ ,  $R^2 = .10$ .  $B$  = unstandardized beta.  $\beta$  = standardized beta. SE = standard error. The overall model statistics are the same for all analyses and thus, are not repeated. Each row represents a different linear regression. Moderators are listed in the first column. Non-attendance = patient did not attend sessions regularly; No Discuss = patient did not engage in session discussions; Manipulate = patient was manipulative during session, Suicidal = patient had suicidal behaviours; Self-Destructive = patient engaged in self-destructive behaviours.

### **3.6.6. Treatment Outcome Moderators: Therapy Characteristics**

#### ***PPD Group***

Pearson's  $r$  correlations were calculated to examine the relations between the two dependent variables and the characteristics of therapy provided to the target patient (Table P11). Characteristics of therapy examined included the duration and frequency of treatment, the setting and specific types of therapeutic interventions utilized by the therapist-respondent. For the purpose of these analyses, the following moderator variables were dichotomized: Treatment Length (< 1 year vs.  $\geq$  1 year), Session Frequency (< 4 times per month vs.  $\geq$  4 times per month), Forensic Setting (vs. Civil Setting), Inpatient Setting (vs. Outpatient Setting). Overall Improvement significantly correlated with treatment length,  $r = .19$ ,  $p < .05$ , Forensic Setting,  $r = .20$ ,  $p < .05$ , Inpatient Setting,  $r = .16$ ,  $p < .05$ , and the following therapeutic interventions: Anger Management,  $r = .22$ ,  $p < .01$ , Violence Prevention and Management,  $r = .18$ ,  $p < .05$ ,

and Social Skills Training,  $r = .18$ ,  $p < .05$ . CAPP Total change scores correlated significantly with Treatment Length,  $r = .35$ ,  $p < .01$ , and the use of Violence Prevention and Management interventions,  $r = .17$ ,  $p < .05$ . Several of the original treatment characteristics did not significantly correlate with either of the dependent variables; these items were: Frequency of Sessions, Sex Offender Treatment, Drug Abuse Treatment, Problem Solving Skills Training, and Treatment for Depression or Anxiety. Treatment Length significantly correlated with all six CAPP change domains and the Violence Prevention and Management item significantly correlated with the *Cognitive*, *Dominance* and *Self* change domains. Receipt of Anger Management significantly correlated with the *Cognitive* change domain; all other correlations were not significant (see Table P11).

Logistic regression analyses were conducted to examine the associations between Overall Improvement of symptoms and the characteristics of treatment and the types of additional interventions used in treatment (Table 27). The first logistic regression included Treatment Length, Frequency of Sessions, and the types of treatment settings as moderators. A test of the overall model was significant and of the four moderators, Treatment Length was significantly related to Overall Improvement (see Table 27). The  $Exp(B)$  of 2.32 indicates that patients who attended therapy for one year or longer were more than twice as likely to evidence overall improvement of their PPD symptoms. A linear regression using the same moderators and CAPP Total change as the dependent variable yielded consistent results with the logistic regression. The overall model was significant, as was the association between Treatment Length and CAPP Total change scores. No other therapy variables in the regression significantly related to CAPP Total change score (see Table 28).

A separate logistic regression was conducted to examine associations between Overall Improvement of symptoms and the types of additional interventions used in treatment (Anger Management, Violence Management, Social Skills Training, Depression / Anxiety Treatment) as moderators (Table 27). The list of intervention variables was narrowed for the logistic regressions based on the correlation results and by examining how correlated these items were with one another. A test of the overall model was significant; however, none of the individual moderators were significant (see Table 27). A linear

regression using the same moderators as the logistic regression, and CAPP Total change as the dependent variable was also conducted. The overall model was not significant. Again, none of the intervention variables were significantly associated with CAPP Total change ratings (see Table 28); however, Violence Management approached significance,  $\beta = .17$ ,  $t(146) = 1.88$ ,  $p = .06$ .

**Table 27. Logistic Regression Results: Association of Overall Symptom Improvement with Therapy Characteristics in the PPD Group**

	<i>B</i>	[SE]	Wald	<i>p</i>	Exp ( <i>B</i> )
Model fit: $\chi^2(4) = 11.02$ , $p = .03$ , Nagelkerke Pseudo- $R^2 = .11$					
Length of Tx	.84	[.43]	3.78	.05	2.32
Freq. of Sessions	.30	[.42]	.52	.47	1.35
Forensic Setting	.70	[.51]	1.86	.17	2.01
Inpatient Setting	.27	[.54]	.25	.62	1.31
Model fit: $\chi^2(4) = 11.23$ , $p = .02$ , Nagelkerke Pseudo- $R^2 = .11$					
Anger Manage	.71	[.46]	2.42	.12	2.03
Violence Manage	.66	[.48]	1.90	.17	1.94
Social Skills	.61	[.44]	1.95	.16	1.84
Depress / Anx Tx	-.27	[.47]	.33	.57	.77

*Note.*  $N = 147$ .  $B$  = unstandardized beta. SE = standard error of the partial slope coefficient.  $Exp(B)$  = the odds ratio. The overall model statistics are the same for all and thus, are not repeated. Each row represents a different logistic regression. Moderators are listed in the first column. Length of Tx = length of treatment with their PPD patient (dichotomized < 1 year versus  $\geq 1$  year); Freq. of Session = the frequency of sessions with their patient (dichotomized < 4 sessions per month versus  $\geq 4$  sessions per month); Forensic Setting = the patient was treated in a forensic setting (vs. civil setting); Inpatient Setting = the patient was treated in an inpatient setting (vs. outpatient setting). The

remaining variables in the first column are types of therapeutic interventions provided to the patient and were tested in a separate logistic regression: Anger Manage = anger management therapy; Violence Manage = violence prevention / management skills; Social Skills = social skills training; Depress/ Anx = therapy targeting depression or anxiety symptoms specifically.

**Table 28. Linear Regression Results: Association of CAPP Total Change Rating with Therapy Characteristics in the PPD Group**

	<i>B</i>	[SE]	$\beta$	<i>t</i>	<i>p</i>
Model fit: $F(4,142) = 4.84, p = .001, R^2 = .12$					
Length of Tx	.27	[.06]	.35	4.30	< .001
Freq. of Sessions	.01	[.07]	.01	.15	.88
Forensic Setting	-.02	[.08]	-.02	-.21	.83
Inpatient Setting	.03	[.09]	.03	.28	.78
Model fit: $F(4,142) = 1.59, p = .18, R^2 = .04$					
Anger Manage	.04	[.08]	.05	.56	.58
Violence Manage	.13	[.07]	.17	1.88	.06
Social Skills	.02	[.07]	.02	.21	.84
Depress / Anx Tx	.08	[.07]	.09	1.04	.30

*Note.*  $N = 146$ . *B* = unstandardized beta.  $\beta$  = standardized beta. SE = standard error. The overall model statistics are the same for all analyses and thus, are not repeated. Each row represents a different linear regression. Moderators are listed in the first column. Length of Tx = length of treatment with their PPD patient (dichotomized < 1 year versus  $\geq 1$  year); Freq. of Session = the frequency of sessions with their patient (dichotomized < 4 sessions per month versus  $\geq 4$  sessions per month); Forensic Setting = the patient was treated in a forensic setting (vs. civil setting); Inpatient Setting = the patient was treated in an inpatient setting (vs. outpatient setting). The remaining

variables in the first column are types of therapeutic interventions provided to the patient and were tested in a separate logistic regression: Anger Manage = anger management therapy; Violence Manage = violence prevention / management skills; Social Skills = social skills training; Depress/ Anx = therapy targeting depression or anxiety symptoms specifically.

### ***BPD Group***

Pearson's  $r$  correlations were calculated to examine the relations between the two dependent variables and the characteristics of therapy provided to the BPD target patient (Table P12). The same variables that were described above in the PPD section were used in the present analyses as well. As can be seen in Table P12, Overall Improvement did not significantly correlate with any of the therapy characteristics variables and CABP Total change score only significantly correlated significantly with Treatment Length,  $r = .33$ ,  $p < .01$ . In the BPD group, Treatment Length significantly correlated with five of the six CABP change domains (all except the *Behavioural* domain). The Inpatient variable significantly correlated with the *Behavioural* and *Dominance* change domains. Similar to the PPD group, Violence Management significantly correlated with the CAPP *Cognitive* change domain. All other correlations were not significant (see Table P12).

Logistic regression analyses were conducted to examine associations between Overall Improvement of symptoms and the characteristics of treatment and the types of additional interventions used in treatment (Table 29). The first logistic regression included Treatment Length, Frequency of Sessions, and the types of treatment settings as moderators. A test of the overall model was not significant. None of the moderators were significantly associated with Overall Improvement (see Table 29), though being treated in an Inpatient setting approached significance,  $B = -.24$ ,  $p = .09$ ,  $Exp(B) = .31$ . A linear regression using the same moderators and CABP Total change as the dependent variable was also conducted. The overall model was significant. Further, both Treatment Length and Inpatient Setting were significantly associated with CABP Total change (see Table 30).

A separate logistic regression was conducted to examine associations between Overall Improvement of symptoms using the types of additional interventions (Anger Management, Violence Management, Social Skills Training, Depression / Anxiety Treatment) as moderators (Table 29). A test of the overall model was not significant, nor were the individual moderators (see Table 29). A linear regression using CABP Total change as the dependent variable and the aforementioned moderators was also conducted. The overall model was not significant. Again, none of the intervention variables were significantly associated with CABP Total change ratings (see Table 30).

**Table 29. Logistic Regression Results: Association of Overall Symptom Improvement with Therapy Characteristics in the BPD Group**

	<i>B</i>	[SE]	Wald	<i>p</i>	Exp ( <i>B</i> )
Model fit: $\chi^2$ (4) = 6.02, <i>p</i> = .20, Nagelkerke Pseudo- $R^2$ = .10					
Length of Tx	.48	[.62]	.60	.44	1.61
Freq. of Sessions	.97	[.64]	2.30	.13	2.63
Forensic Setting	.40	[.96]	.17	.68	1.49
Inpatient Setting	-1.18	[.69]	2.95	.09	.31
Model fit: $\chi^2$ (4) = 3.95, <i>p</i> = .41, Nagelkerke Pseudo- $R^2$ = .06					
Anger Manage	-.24	[.92]	.07	.80	.79
Violence Manage	-1.56	[1.17]	1.76	.19	.21
Social Skills	1.16	[.89]	1.70	.19	3.17
Depress / Anx Tx	-.58	[.65]	.80	.37	.56

*Note.* *N* = 126. *B* = unstandardized beta. SE = standard error of the partial slope coefficient. *Exp(B)* = the odds ratio. The overall model statistics are the same for all and thus, are not repeated. Each row represents a different logistic regression. Moderators are listed in the first column. Length of Tx = length of treatment with their BPD patient (dichotomized < 1 year versus ≥ 1 year); Freq. of Session = the frequency of sessions

with their patient (dichotomized < 4 sessions per month versus ≥ 4 sessions per month); Forensic Setting = the patient was treated in a forensic setting (vs. civil setting); Inpatient Setting = the patient was treated in an inpatient setting (vs. outpatient setting). The remaining variables in the first column are types of therapeutic interventions provided to the patient and were tested in a separate logistic regression: Anger Manage = anger management therapy; Violence Manage = violence prevention / management skills; Social Skills = social skills training; Depress / Anx = therapy targeting depression or anxiety symptoms specifically.

**Table 30. Linear Regression Results: Association of CABP Total Change Rating with Therapy Characteristics in the BPD Group**

	<i>B</i>	[SE]	$\beta$	<i>t</i>	<i>p</i>
Model fit: $F(4,126) = 5.26, p = .001, R^2 = .14$					
Length of Tx	.33	[.08]	.36	4.28	< .001
Freq. of Sessions	.05	[.09]	.05	.59	.56
Forensic Setting	-.16	[.14]	-.11	-1.19	.24
Inpatient Setting	.21	[.10]	.20	2.08	.04
Model fit: $F(4,127) = .98, p = .42, R^2 = .03$					
Anger Manage	< -.01	[.11]	< -.01	-.01	.99
Violence Manage	.17	[.17]	.10	.97	.33
Social Skills	.06	[.09]	.07	.69	.49
Depress / Anx Tx	-.11	[.08]	-.13	-1.45	.15

*Note.*  $N = 130$ . *B* = unstandardized beta.  $\beta$  = standardized beta. SE = standard error. The overall model statistics are the same for all analyses and thus, are not repeated. Each row represents a different linear regression. Moderators are listed in the first column. Length of Tx = length of treatment with their BPD patient (dichotomized < 1 year versus ≥ 1 year); Freq. of Session = the frequency of sessions with their patient

(dichotomized  $< 4$  sessions per month versus  $\geq 4$  sessions per month); Forensic Setting = the patient was treated in a forensic setting (vs. civil setting); Inpatient Setting = the patient was treated in an inpatient setting (vs. outpatient setting). The remaining variables in the first column are types of therapeutic interventions provided to the patient and were tested in a separate logistic regression: Anger Manage = anger management therapy; Violence Manage = violence prevention / management skills; Social Skills = social skills training; Depress/ Anx = therapy targeting depression or anxiety symptoms specifically.

## **Chapter 4.**

### **Discussion**

The overarching intent of the present study was to advance the scientific knowledge on the treatment of PPD given that, to date, there are no empirically supported tailored therapies for PPD. This is the first study to examine the trends in therapeutic practice regarding the treatment of PPD. Information about MHPs' conceptualization of PPD (prototypicality ratings), clinical experience, attitudes toward PPD patients and treatment approaches was gathered to assess their impact on treatment outcomes. Additionally, information about the treatment of an actual patient was assessed, including examining the nuances in individual symptom change in an effort to address the unanswered question of whether PPD is actually being effectively treated and, if so, what are the successful approaches.

Given the strong body of empirical research on effective strategies for the treatment of BPD, and the similarities between PPD and BPD, the aforementioned data was also collected for BPD and assessed for comparison purposes. Both PPD and BPD are severe personality disorders that involve dysfunctions in such areas as interpersonal connectedness and emotional expression, and both have been associated with increases in violent behaviour (Raine, 2003); little work has been conducted examining the similarities between the two constructs. This is an important association to examine given the advances in the treatment of BPD that have occurred. The successful management and treatment of BPD provides a possible template for devising a treatment of PPD. For example, perhaps elements of DBT may act as a springboard for designing an effective PPD intervention.

## 4.1. Attitudes

### 4.1.1. General Attitudes Toward Treatment

Despite the pervasive pessimism regarding PPD treatment in the empirical literature, the respondents in the present study appeared to demonstrate mixed views regarding PPD patients and their treatment. For example, when directly asked if PPD patients are treatable, 95% of MHPs reported that they felt PPD was treatable, with 69% reporting PPD is treatable *Sometimes*, 24% *Most of the time* and only 2% felt PPD was treatable *Always*. Though these results demonstrate therapeutic optimism, they were significantly less positive than the BPD group. In the BPD group, 99% of respondents reported that they believe BPD patients are treatable (14% reported BPD is treatable *Some of the Time*, 66% *Most of the Time* and 19% said BPD was *Always* treatable).

Comparison results of the APDQ ratings also indicated that respondents in the PPD group evidenced significantly more pessimistic views of PPD patients than BPD group respondents did for BPD patients. The pattern of ratings was consistent between groups, though generally, mean ratings were lower in the BPD group than those in the PPD group, indicating less pessimistic views about BPD patients.

The APDQ Total score was significantly associated with overall treatment improvement, as was the *Futility* domain and the additional survey item “*I feel psychopathic patients are treatable.*” These results indicate that more negative, pessimistic global views of PPD were associated with poorer treatment outcomes with an actual patient who has PPD. Results were somewhat similar for the BPD group in that the APDQ Total score was positively correlated with overall and symptom level improvement. However, the additional item, “*I feel BPD patients are treatable*” was not significantly related to symptom change. Additionally, the *Rejection* domain was significantly associated with attitude change; however, these variables were positively related, indicating that those MHPs who demonstrated more rejecting attitudes towards BPD patients reported more improvement in their actual patient’s symptoms.

#### 4.1.2. Patient-Specific Treatment Attitudes

Attitudes regarding the treatment of a specific patient with PPD were also generally negative. Positive pre-treatment beliefs were only held by the *majority* of MHPs on an item about their willingness to treat the patient (prior to treatment); 77% of MHPs in the PPD group indicated they were moderately to very willing to treat their patient. The second highest endorsement was for confidence in their ability to treat the patient (39%), and only 34% of respondents were moderately to very optimistic that their patient's symptoms of PPD would improve with treatment; 16% were not optimistic at all that the patient would improve and 19% of MHPs felt their PPD patient was *not* treatable at the onset of therapy. This pattern of results suggests that the MHPs optimism is related more to their own openness and abilities as a clinician, and less so to the patient's symptoms actually being able to improve.

The pattern of results within the BPD group was significantly different such that the *majority* of MHPs were willing to treat the patient, optimistic regarding treatment, confident in their abilities to treat the patient and felt the patient was overall treatable. This significant difference between groups is likely due, in part, to the fact that much empirical support exists regarding the effective treatment of BPD. Additionally, the MHPs in the BPD group had more exposure to specialty training in BPD therapy than the PPD group, which also likely bolstered their pre-treatment attitudes.

Despite the significant differences between groups regarding pre-treatment attitudes, across both groups these pre-treatment attitudes were not significantly associated with actual treatment outcomes of the target patients. Of note, the validity of these pre-treatment attitudes could certainly be questioned as the respondents were providing them retrospectively; however, the fact that the attitudes are not overwhelmingly positive across groups suggest that the MHPs were not engaging purely in a positive response bias. Additional support comes from the fact that the reported pre-treatment attitudes were not significantly associated with the treatment outcomes. In other words, respondents were not uniformly reporting positive attitudes and subsequent

positive treatment outcomes; rather it appears their responses were reasoned and reflective of genuine responding.

## **4.2. Treatment Outcomes**

### **4.2.1. Overall Improvement**

One of the most salient findings of this study is that MHPs reported general improvement across symptoms in their patients with PPD. This finding greatly contrasts with much of the scientific literature, which has emphatically stated PPD patients do not benefit from treatment (with some studies indicating PPD patients' symptoms even *worsen* with treatment; e.g., Rice, Harris, and Cormier, 1992). In the present study, 77% of respondents reported their target patient's overall severity of PPD symptoms improved (51% *slightly*, 23% *moderately*, 3% *significantly*). Though respondents in the BPD group reported significantly higher rates of overall improvement (e.g., 90% of respondents reported overall improvement with 26% rating the improvement as *significant*), there appears to be consistent symptom reduction across both groups.

### **4.2.2. Individual Symptom Improvement**

Treatment outcomes were also assessed through the use of change variables created by subtracting the final symptom severity rating for each of the CAPP or CABP symptoms from the severity rating of each symptom at the beginning of treatment. Results of these analyses indicated that all CAPP symptoms evidenced improvement across participants (all mean change symptom ratings were positive, rather than negative). This same pattern was true for CABP change symptoms in the BPD group.

The symptoms that were most often reported to change in PPD patients were: *Self-justifying*, *Aggressive*, *Disruptive*, and *Domineering*. These symptoms with the most improvement span the CAPP domains (rather than representing just one or two domains of functioning); this suggests that PPD as a whole construct is treatable, rather than just select behavioural manifestations (e.g., criminal recidivism or impulsivity). Symptoms

with the worst treatment improvement (lowest mean CAPP change ratings) in the PPD group were: *Lacks anxiety, Sense of Uniqueness, Restless and Lacks Concentration*; these results are in a somewhat anticipated direction as these symptoms are largely not maladaptive (e.g., *Lack of Anxiety, Sense of Uniqueness*) and thus, are not often the focus of psychotherapy.

Regarding the BPD group, symptoms of the CABP that were rated by MHPs as improving the most were: *Self-destructive, Sad, Lacks Emotional Stability and Self-critical*. Consistent with results for the PPD group, symptoms with the most improvement spanned domains in the BPD group, indicating that MHPs were not just noticing improvement in only one area of functioning. These symptoms too are often common treatment targets in therapies tailored for BPD patients, such as DBT. The symptoms with the lowest improvement ratings in the BPD group were: *Hypersexual, Manipulative, Detached and Deceitful*. A potential explanation for these symptoms being rated as least improved is that they may not have been targets of the therapy, and thus did not change significantly. These symptoms also appear to be those most likely to impair therapeutic alliances. Consistent with the PPD group, the least improved symptoms were also rated (via prototypicality ratings) as less central to BPD.

A benefit of using the CAPP and CABP as the assessment measures for PPD and BPD symptoms is that, though the symptoms are largely different across measures, they are organized into the same six domains of functioning, which facilitates comparison analyses. Additionally, there are ten overlapping items that are identical across measures. Analyses comparing the treatment outcomes of the overlapping symptoms across groups indicated that generally, BPD patients had significantly higher rates of improvement. Specifically, BPD patients improved significantly more than PPD patients on the symptoms *Lacks emotional stability, Unstable self-concept and Suspicious*. Conversely, the symptom *Deceitful* improved significantly more in PPD patients than BPD patients and there were no significant differences between the remaining six overlapping symptoms. Of note, the three symptoms with greater improvement in the BPD patients were rated as more prototypical of BPD than PPD, and

thus, may have been targeted more in the treatment with BPD patients, while Deceitful was rated as more prototypical in the PPD group than the BPD group.

Across groups, the symptoms with the lowest improvement ratings were rated by MHPs as non-central symptoms of PPD and BPD (e.g., they received low prototypicality ratings), which means they may not have been the focus of the interventions, while the symptoms rated as most improved may have been the targets of therapy. Another consideration regarding rates of symptom improvement could be that some symptoms may naturally improve over time, regardless of therapy, which would impact the change rating. For example, research has found that PPD and BPD severity diminishes with age (Gill & Crino, 2012; Harpur & Hare, 1994; Zanarini, Frankenburg, Hennen, & Silk, 2003).

#### **4.2.3. CAPP and CABP Domain-Level Improvement**

In examining improvement across domains of functioning on the CAPP, the *Dominance* and *Behavioural* domains evidenced the most improvements in symptoms, while the *Cognitive* and *Attachment* domains demonstrated the least improvement. This pattern was disparate from the BPD group who evidenced the most improvement on the *Emotional* and *Self* domains and the least improvement on the *Dominance* and *Attachment* domains. These results seem to suggest that PPD patients may be improving more on interpersonal functioning deficits as a result of treatment, while BPD patients see more improvement in the cognitive and affective aspects of their disorder. That said, results again indicated that BPD patients improved significantly more than PPD patients across the Total Change score. There was no difference in improvement on *Attachment* or *Dominance* domain symptoms. These results are interesting given that the *Attachment* and *Dominance* domains represent deficits in interpersonal functioning. Though PPD and BPD patients deficits in interpersonal functioning are typically at opposite ends of a continuum (e.g., PPD patients often lack a drive for connection with others while BPD patients strongly desire attachment to others) it appears that, broadly, issues of interpersonal attachment are among the most difficult therapy targets. These results are consistent with prior research on BPD treatment (Binks et al., 2006).

## 4.3. Treatment Moderators

### 4.3.1. Prototypicality of Symptoms

Results indicate that MHPs in the present study were consistent with MHPs in other studies on the conceptualization of PPD and BPD. The mean prototypicality ratings of the present study strongly and significantly correlated with those of previous studies on the CAPP and CABP (e.g., Hoff et al., 2012; Kries et al., 2012; Lim et al., 2013; Sörman et al., 2014). These results indicate that the present sample of MHPs were reliable in their assessment of PPD and BPD.

In the PPD group, prototypicality ratings did not correlate with change ratings or overall improvement ratings of their target patient; there was not a significant association between a participant's prototypicality ratings and observation of symptom change. Of note, the *Dominance* and *Emotional* prototypicality domains were negatively correlated with their respective mean CAPP change domain scores. Though these correlations were not significant, the negative direction of the correlation is interesting as it implies that the more prototypical dominance and emotional symptoms of PPD were more difficult to treat.

A more robust relation was found between prototypicality ratings and symptom improvement in the BPD group. The CABP Total Change scores significantly, and positively, correlated with CABP Total prototypicality ratings, and the CABP *Emotional* and *Self* prototypicality domains. Comparisons between the mean CABP prototypicality ratings for the 27 CABP symptoms (outlined in Appendix J, Table J2) and the mean CABP change ratings for each of the 27 CABP symptoms (outlined in Appendix N, Table N2) indicated that the total amount of CABP prototypicality ratings were significantly associated with total CABP change ratings. Additionally, the mean prototypicality ratings of the 10 items that overlap between the CAPP and CABP were significantly correlated with the overlapping items' mean change scores. This finding suggests that the overlapping symptoms were more amenable to treatment in a BPD population than a PPD population.

Of note, this study provided further validation of the CAPP model of understanding PPD. The CABP too appears to adequately model BPD. These findings are important, particularly in the field of PPD research, as the *Psychopathy Checklist – Revised* (PCL-R; Hare, 2003), and its underlying theory, has been one of the only models used to identify PPD. Recently, some of the symptoms outline on the PCL-R, including the inclusion of criminal behaviour as a symptom of PPD, have come into question as valid symptoms of PPD (Skeem & Cooke, 2010).

#### **4.3.2. Therapist Characteristics**

Briefly, the majority of respondents were female and from North America. MHPs had primarily received their clinical training in the field of psychology across groups and over half of respondents in each group were practicing therapy at the doctoral level. The majority of MHPs had been actively providing therapy within the last year. Approximately half of respondents have provided therapy to over 100 patients; indicating that the sample consisted of experienced MHPs. Differences between groups existed with regard to treatment setting, such that MHPs in the PPD group were divided equally across treatment settings (Forensic versus Civil), while the majority of MHPs in the BPD group provided services in Civil and Outpatient settings.

Of note, there was a significant difference between groups regarding the MHPs' engagement in disorder-specific specialty training such that BPD group MHPs were significantly more likely to have received BPD-specific training. The qualitative discrepancy between training experiences reported by PPD and BPD group respondents is notable in that the majority of the PPD group MHPs' reported specialty training was assessment focused (e.g., PCL-R trainings), while, of the 99 respondents in the BPD group who reported receiving specialty training for working with BPD, 83% indicated that their training was treatment-focused (primarily DBT training). These results indicate that not only have the MHPs in the BPD group received more specialty training in general, but their training has also been largely therapy-focused, while PPD group respondents received training primarily on the assessment of PPD. This finding likely explains, in part, the pessimism and smaller treatment improvements in the PPD group; MHPs are not

receiving the same level of training on effective therapy strategies to implement with PPD patients that MHPs who treat BPD are receiving. These results are important because within the BPD group, specialty training for working with BPD patients was significantly associated with symptom improvement.

Within the PPD group, therapist characteristics and training did not significantly relate to treatment outcomes. In the BPD group, MHPs reported that patients treated in Forensic settings were significantly less likely to improve.

#### **4.3.3. Patient Characteristics and Therapy Challenging Behaviours**

Target patients differed significantly in gender across groups such that 91% of PPD target patients were male while only 19% of BPD target patients were male. MHPs across both groups indicated that slightly less than half of target patients had strong social supports. Approximately one-fourth of patients across groups evidenced a comorbid serious mental illness (SMI; defined in the present study as a psychotic disorder, bipolar disorder or major depressive disorder) and there was not a significant difference between groups with regard to the presence of SMI; however, PPD patients were more likely to have psychotic and substance abuse disorders (though the difference between groups for a comorbid substance abuse disorder was not significant). BPD patients were more likely to have comorbid anxiety and depression.

These results are similar to those of Skeem, Monahan and Mulvey (2002) who reported that approximately 39% of psychopathic patients had comorbid diagnoses of substance abuse, 28% met criteria for a depressive disorder, 15 – 26% had schizophrenia and 11 % had bipolar disorder. The results of the present study, in conjunction with those of Skeem and colleagues, speak to the potential need to include PPD patients in multi-systemic treatment approaches (e.g., psychotropic medications, substance abuse treatment and targeted treatment approaches for their serious mental illness, such as CBT for psychosis (Skeem, Monahan & Mulvey, 2002). PPD patients are often excluded from treatment groups, but comorbid mental illness may moderate efficacy of PPD treatment.

The only patient characteristic that moderated treatment outcomes in the PPD group was Social Supports. Specifically, results indicated that PPD patients with less social support evidenced more therapeutic improvement. While these results may initially be perplexing, one possible explanation is that individuals without social supports may have relied on their therapeutic relationship (alliance) for support, and thus engaged more significantly in therapy, which led to more change in symptoms. Another potential explanation is that perhaps the social supports of the PPD patients were negative influences on the patient (e.g., an antisocial or criminal peer group), and thus reinforced the patient's poor behavioural choices and cognitions.

In the BPD group, the presence of a comorbid serious mental illness significantly moderated treatment outcomes. This finding is not surprising as patients suffering from both a personality disorder and a SMI likely have greater overall symptom severity, and treatment is likely focused on addressing the more acute mental illness.

Regarding patient engagement in therapy interfering behaviours, several significant differences were found between PPD and BPD patients. Compared to BPD patients, PPD patients were significantly more likely to lack motivation, lack insight, fail to form a therapeutic alliance, demonstrate ambivalence and engage in manipulation of the therapist. BPD patients engaged in significantly more suicidal and self-destructive behaviour. Within the PPD group, patient non-attendance, manipulation of the therapist and suicidal behaviour were associated with symptom improvement. However, unlike patient non-attendance and therapist manipulation, the association between suicidal behaviour and PPD improvement was *positive*, indicating that patients who were suicidal evidenced *greater* improvement of PPD symptoms. An explanation for this finding may be that PPD patients who were suicidal were potentially in psychological distress, which would likely lead to greater engagement in the therapeutic process in order to ameliorate these feelings.

#### **4.3.4. Therapy Characteristics**

Briefly, the majority of MHPs treated their patients from primarily a CBT-based orientation in individual therapy. No significant differences were found regarding the type of theoretical orientation used to treat patients as the overwhelming majority of respondents across groups reported the use of a CBT-based orientation. Half of PPD group MHPs reported that they were able to treat their patient for over a year and slightly over half (61%) saw the patient at least once per week. Of the therapy characteristics analysed in this study, only length of treatment was significantly (positively) associated with treatment improvement in the PPD group. This finding was consistent in the BPD group; receiving treatment in an Inpatient setting also significantly (positively) related to improved treatment outcomes in the BPD group.

Significantly more PPD patients were treated in Forensic and Inpatient settings while MHPs in the BPD group treated their target patients in Civil Outpatient settings. This difference in setting likely impacted treatment outcomes given that individuals in Inpatient or Forensic settings are often required to participate in treatment, or face coercion to participate (e.g., earlier release for participation in programming). BPD patients were significantly more likely to be treated for longer than one year and to have more frequent sessions (at least four times per month), than PPD patients. These results too were likely impacted by the treatment setting as inpatient treatment is often shorter in duration.

### **4.4. Issues in the Development of PPD Specific Treatment**

#### **4.4.1. The Importance of Therapeutic Alliance and Therapist Attitudes**

As this study demonstrates, the therapeutic alliance is often tenuous in personality disorder treatment; however, it is a crucial component to successful therapy outcomes. For example, Horvath and Symonds (1991) conducted a meta-analysis of 24 therapy outcome studies and found that 26% of the difference in the rate of therapeutic

success was accounted for by the quality of the therapeutic alliance. Difficulties with the development and subsequent maintenance of a strong therapeutic alliance is an identified issue in the treatment of personality disorders generally, but particularly for treating individuals with PPD and BPD, as evidenced in this study. Interestingly, MHPs reported comparable rates of therapeutic alliance difficulties across PPD and BPD treatment. Despite these rates, the majority of patients across groups evidenced positive therapeutic outcomes. Therefore, perhaps these alliance issues, though demoralizing, may not have as much of an impact as perceived.

Therapists across groups who harboured negative or pessimistic views for working with PPD and BPD patients evidenced poorer treatment outcomes with respective target patients. The negative attitudes likely impacted the therapeutic alliance indirectly. Given the impact of therapist attitudes on symptom improvement in PPD patients, tailored treatments for PPD should include supportive components for the therapists in order to reduce negative attitudes. Dialectical behavioural therapy (DBT) is a strong model to emulate given one of the core components is therapist case consultation with a treatment team of DBT therapists (Linehan, 1993).

In DBT, the treatment consult teams meet weekly to discuss treatment progress, patient behaviour and the therapist's reactions to the patient. These meetings assist the therapist in recognizing and addressing any countertransference feelings that may arise and disrupt therapeutic progress. Additionally, the DBT model targets therapeutic alliance issues directly with the patient through the overarching structure of treatment goals. Unlike other treatment approaches, which derive and order therapy goals based on the patient's self-reported level of importance, DBT consists of treatment goals which are already structured in a hierarchy related to patient functionality in the world and within the therapeutic alliance. Specifically, the hierarchy of DBT targets 1) patient suicidal behaviour and ideation (as these are most dangerous to the patient), 2) therapy interfering behaviours which impact the actual clinical work between therapist and patient (e.g., missing sessions, patient not completing assignments, negative attitudes held by the therapist toward the client), 3) quality of life interfering behaviour (behaviours causing crises, overarching life goals of the patient), 4) behavioural skill development

(skills taught in group such as emotion regulation, distress tolerance; Linehan, 1993). This hierarchy was developed to address the specific needs of BPD patients. For example, BPD patients have one of the highest suicide rates of all mental health populations, and as such, suicidality is a priority of this treatment. Further, BPD patients often struggle with developing healthy attachment and boundaries with other individuals, and therefore, focusing on these skills as a primary therapy goal is important.

The DBT model of organizing treatment goals into a hierarchy that addresses the most salient symptoms of a particular disorder is a strong model for the development of a PPD-specific therapeutic intervention. For example, many of the symptoms of PPD may not initially be viewed as problematic to the patients (e.g., thrill seeking, superficial charm; Hemphill, 2003); however, targeting those symptoms which do cause issues in their life (e.g., poor behaviour controls, pathological lying) may be a good start in the development of an alliance between patient and therapist and may foster patient insight into the negative aspects of their disorder (e.g., accruing arrests, lack of social supports). Additionally, this hierarchy may also target those symptoms and behaviours that are especially negative for society, such as violence against others and a lack of empathy or remorse.

#### **4.4.2. Issues of Heterogeneity**

Currently, many unique formulations of PPD exist within the scientific community (e.g., Cooke, 2008; Hare, 2003; Patrick et al., 2009), instigating much debate in the field regarding the operational definition of PPD (e.g. Lynam & Miller, 2012; Skeem & Cooke, 2010). The lack of a clear conceptualization of PPD has led to several challenges including a lack of diagnostic criteria in official diagnostic classification systems (e.g. DSM-5), an over-reliance on assessment tools of PPD for diagnosis, (e.g., the PCL-R; Hare, 2003) and inconsistent operationalizations of PPD across research studies. With regard to PPD treatment studies, the heterogeneity of PPD suggests that perhaps different treatment strategies may be beneficial for different patterns of PPD symptoms or symptom clusters (Skeem, Poythress, et al., 2003). Individuals with personality disorders, due to the unique configuration of symptoms, often present differently from

one another. As such, treatment must account for the individual differences between these patients; this has been a tenet of psychotherapy generally, and certainly appears to hold true for the treatment of PPD. That said, as with BPD treatment, there appear to be core issues of dysfunction across all individuals with these disorders that are more broadly categorized (e.g., interpersonal deficits); as such, providing therapy around these broad categories of dysfunction may be a way to effectively treat a more heterogeneous population, rather than targeting individual symptoms.

#### **4.4.3. Issues of Motivation for Change**

A core symptom description of PPD is that individuals with this disorder do not experience remorse, guilt or empathy for others, and thus do not feel compelled to change their behaviours after hurting someone (Hare, 2003). This lack of interpersonal connectedness or insight into the maladaptive nature of these behaviours undoubtedly reduces their motivation to seek therapy or engage in the therapeutic alliance (Hemphill & Hart, 2003). However, it could be argued that individuals with PPD do experience negative repercussions from many of the societal sanctions they face for engaging in criminal behaviours for example (e.g., incarceration, fines, loss of employment). In the present study, lack of motivation and non-attendance at sessions were two of the most highly (negatively) correlated therapy interfering behaviours with treatment outcomes. In fact 89% of PPD group respondents indicated that their patient lacked motivation to participate in therapy. This low motivation and non-attendance in sessions may be resulting from the PPD symptoms of impulsivity and lack of concentration. As such, tailored interventions for PPD must attempt to control for the low desire to engage in therapy and the low motivation to sustain treatment. For example, keeping treatment dynamic and engaging would be important for working with PPD patients. Mirroring strategies from DBT Skills Training may be a strong starting point, as DBT skills training guides patients through new skills during each session, creating a learning environment where novel information is consistently presented.

## **4.5. Designing Future Treatment Protocols for PPD**

Presently, little research has been published on therapy interventions for PPD. The studies that have been conducted are outdated, employed poor methodological designs, and often focus only on criminal recidivism as the outcome measure. While criminal recidivism is undoubtedly an important issue to work to reduce, it is arguably a behaviour that manifests from the underlying personality traits of PPD. As such, it stands to reason that, rather than focusing treatment on a manifestation of underlying traits, it would be important to directly focus interventions on these traits. This reasoning is the basis of many empirically supported interventions, including cognitive behavioural therapy (CBT); one of the primary tenets of CBT is to identify and change maladaptive, underlying thoughts in order to subsequently change one's behaviours (Beck, 2011). Programs that tailor empirically supported treatment principles to individuals with psychopathic traits have yet to be tested (see Wong, 2000), but this would likely be a wise starting point for designing PPD treatment.

An alternative approach to devising a tailored treatment protocol for PPD would be to design treatment modules related to overarching domains or behavioural manifestations of the underlying traits, much like the model for BPD treatment (e.g., Linehan, 1993). For example, when treating BPD using the DBT approach, skills are taught within four categories: emotion regulation, distress tolerance, interpersonal effectiveness and mindfulness.

Results also indicate that individuals with PPD struggle with comorbid diagnoses, which may also be considered in treatment protocols. For example, research has strongly demonstrated that substance abuse is highly correlated with PPD (Hemphill, Hart, & Hare, 1994; Rutherford, Alterman, & Cacciola, 2000), and therefore addressing this consistent and prominent comorbid disorder would be important when developing a holistic treatment.

Although research on the treatment of PPD has been slowly improving (e.g., Barbaree, 2005; Hare et al., 2000; Seto & Barbaree, 1999), there is still a need for further

measurable improvements in both the treatment designs for PPD patients and for the research studies which examine the efficacy of PPD treatment. Treatment protocols should clearly define PPD and ensure that the participants in the treatment study all meet consistent diagnostic criteria. Additionally, the previous methodological shortcomings that have pervaded PPD treatment research should be controlled for. As an example, randomized control studies should be conducted which contain a control (or TAU) group for comparison purposes. The vast majority of PPD research studies have been retroactive in design, often looking at outdated treatment approaches (e.g., administering illicit drugs to patients, patient-run groups). As such, new studies should examine current treatment practices and newly devised protocols that are empirically and theoretically derived from existing effective treatment strategies (e.g., DBT for BPD). Ideally, given that personality disorders generally require a lengthier time period to evidence therapeutic success (e.g., Salekin, 2002), treatment protocols should be created for a long-term format and subsequent treatment studies should be longitudinal in nature. Indeed, this association between the duration of treatment and symptom improvement was found in the present study as well (patients in therapy for over a year demonstrated better treatment outcomes).

Of note, significant resources and trained personnel are required to provide treatments like DBT and MBT. Thus, hospitals and clinics would need to allocate time and resources into the development and delivery of such treatments. Raising people's awareness of the problems associated with PPD and BPD is needed in order to stimulate greater resource allocation to its treatment. For example, PPD, BPD and schizophrenia have similar prevalence rates in the population, but services for schizophrenia far exceed those for BPD and PPD.

#### **4.6. Limitations and Future Directions**

The current study was an important first step in identifying therapeutic outcomes with PPD patients; however, there are many aspects of the project design which can be improved upon in future research endeavours. First, this was an online survey of

clinician's opinions and retrospective recall of their therapeutic outcome with a prior patient. This design does not entirely control for clinician response bias. For example, it is unclear what led MHPs to choose the particular case they reported on for symptom change; it could be argued that perhaps the MHPs may have self-selected those cases which evidenced the most improvement in their caseload, or the least improvement (e.g., the most salient case). Additionally, this design does not control for randomization of respondents. A large number of MHPs were sent the link for the survey and they did not all respond. As such, it could be the case that MHPs who were more effective in treating PPD (or BPD) were more inclined to complete the survey. Unfortunately, researchers often cannot control who responds to their survey as research participation is typically voluntary.

Another limitation of the current study was that the purpose of the therapy with the target patient was not assessed. Purpose often impacts motivation and engagement in therapy. For example, the data indicates that the majority of PPD patients were treated as an inpatient, and approximately half were treated in a Forensic setting. Many patients treated in these settings are often required to attend therapy, or are coerced into treatment participation that may reduce the amount of time they are required to remain in the secured setting. BPD patients, on the other hand, were treated primarily in Civil Outpatient settings. Future studies would benefit from controlling for treatment setting across participants.

A variable to control for in future studies is theoretical orientation. In the present study, the vast majority of respondents provided therapy from a CBT-based orientation, and as such, no significant differences were found regarding the type of theoretical orientation used to treat patients. Further, no analyses could be conducted to examine if specific theoretical orientations or therapies were more effective than others at eliciting symptom improvement. Future work should tailor data collection in such a way as to gather equal samples of participants from different theoretical orientations so that comparisons can be made.

I attempted to control for bias in self-reported outcomes by ensuring that the survey remained anonymous and by creating change variables, rather than just asking respondents to report overall if they felt the symptoms improved or worsened. Though change ratings reduce the reliance on subjective guessing about an outcome, the change ratings are still based on clinical impressions of a historical treatment case, certainly bias may likely have influenced results. However, results indicate that an overly positive response bias was likely not occurring as MHPs across groups reported many negative attitudes about PPD and BPD patients in addition to negative outcomes. Additionally, though MHPs in the PPD group generally reported that patients improved with treatment, the improvement was largely modest, and PPD patients were reported to improve significantly less than BPD patients.

A future direction would be to acquire a known group of experts in PPD and BPD to complete survey questions and compare the expert ratings to general MHPs. However, this feat may prove challenging for the PPD group as there currently are no experts on PPD treatment per se, given the lack of empirical focus or tailored treatments for this disorder. Perhaps, as knowledge about effective PPD treatment strategies evolves, this would be advantageous in parsing apart effective versus ineffective treatment approaches.

Another future direction would be to compare these results to those of a replication study that uses different assessment models of PPD and BPD. This project relied on the CAPP and CABP to assess for symptoms of PPD and BPD, respectively, and while they both appeared to represent the constructs adequately, the CABP was a less robust indicator of BPD than the CAPP was for PPD. These models were used in concert in the present study so that important comparisons could be made across groups given that they contain ten overlapping symptoms and that the symptoms are organized into the same six domains of functioning. However, as the CABP has less validation presently, it is suggested that replication studies could incorporate a more validated measure of BPD symptoms.

## **4.7. Conclusion**

This project is an important first step in consolidating the outcomes of the treatment that is currently being attempted with PPD individuals in order to empirically inform future treatment approaches for individuals with PPD. The results are cautiously optimistic in that, overall, PPD patients evidenced improvements with treatment. That being said, the BPD group generally evidenced significantly higher rates of reported improvement at the symptom and domain level. This study also identified nuance variables which can be controlled for, or incorporated into treatment plans, to increase the likelihood of successful treatment outcomes with PPD patients. For example, results indicate that negative and pessimistic attitudes toward the patient significantly impact treatment outcomes. Devising better training programs for conducting therapy with PPD patients that discuss the role of counter-transference and managing one's own feelings that come up during therapy would be important. Additionally, including a consult team as part of the intervention, where therapists meet weekly to discuss cases and receive support and feedback from colleagues (which is part of DBT), would be hugely beneficial for MHPs treating PPD patients. Therapies should be long-term and focus particular attention on the interpersonal symptoms of PPD as these appear to be the most difficult to change. A next step following this project would be to begin to develop and test treatment approaches for working with PPD patients. A final goal is that the results of this project will reduce some of the pessimism that exists in the field and will inform the development and implementation of treatment protocols tailored for PPD patients.

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# Appendix A.

## Informed Consent

### Study Title

Clinicians' perspectives on the treatment of psychopathic and borderline personality disorders: Identifying current strategies to better inform future treatment directions.

### 1. Study Personnel

Principle Investigator: Ashley A. Murray, M. A.  
Faculty Supervisor/Co-Investigator: Stephen D. Hart, Ph.D.

### 2. Goals/Purpose of the Study

The goals of the current research are to: (1) Characterize the attitudes and current practices of clinicians with respect to the treatment of psychopathic personality disorder (PPD; also known as: psychopathy, sociopathy, dissocial personality disorder, antisocial personality disorder) and borderline personality disorder (BPD; also known as: borderline personality, emotionally unstable personality disorder), and (2) Identify potentially useful strategies for the treatment of specific PPD and BPD symptoms or symptom clusters.

If you choose to participate in this study, you will be asked, via an electronic survey, a series of questions about a personality disordered patient you have treated (one with a diagnosis of psychopathic personality disorder OR borderline personality disorder) therapeutically. You will provide only basic demographic information about the patient in addition to data on the patient's symptoms and the strategies you employed to treat him/her. Finally you will be asked about the therapeutic outcomes of your patient.

### 3. Voluntary Nature of the Study

If you decide to participate, you are free to not answer any questions or withdraw at any time without prejudice or negative consequence. If you stop participation during this web-based survey at any time your data will not be included in the study. Your decision whether or not to participate will not affect your current or future relations with Simon Fraser University.

### 4. Anonymity/Confidentiality

This is an anonymous web-based survey and thus you will not be providing your name at any point. The survey is being created using the Remark Web Survey from Gravic Inc. The survey will be conducted on a Canada-based server with all of the participant

responses stored confidentially and anonymously on the same server. Once the completed survey data has been collected from the Remark Web Survey software running on the host SFU server, it will be saved onto a password-encrypted USB memory stick which will be stored in a locked cabinet in the Mental Health Law and Policy Institute at SFU.

The researchers will keep the information coded numerically and confidential. This data will be deleted in seven years. There will be no way to identify the participant's identity if the results are presented and/or published. Following your completion of the survey you will not be contacted by the researchers unless you initiate contact, or you indicate that you would like to participate in the draw for one of four \$50 gift cards or one of 20 \$10 gift cards and you should win the draw; at that point, you will be emailed regarding details of the prize acceptance.

#### 5. Benefits of the Study to the Participant

You will be able to learn about the current trends, issues and outcomes in the treatment of psychopathic and borderline personality disordered individuals. Additionally, your participation will assist in the formulation of better informed treatment protocols which address all the symptoms of psychopathy (not just the behavioral ones). Your participation may also identify some potentially useful strategies for treating specific PPD and BPD symptoms or symptom clusters. Participants who complete the survey will be entered into a draw (should you choose to enter) to win one of four \$50 gift cards or one of 20 \$10 gift cards; this is completely voluntary.

#### 6. Risks of the Study to the Participant

There are no physical, economic, or social risks associated with your participation in this study. You may feel slightly uncomfortable recalling past treatment sessions you undertook with a personality disordered patient, and you can choose to take a break or end the survey at any time. The researcher will offer you mental health resources to use at your discretion.

#### 7. Permission from Other Organizations

Not applicable.

#### 8. Obtaining Research Results

You can obtain research results from Ashley A. Murray following the completion of the study (Fall 2014) via email at [REDACTED], or in writing at:

Attn: Ashley A. Murray

[REDACTED]

In addition, the researcher(s) will be happy to answer any questions you may have at any time during the course of the study.

9. Complaints

Please direct concerns or complaints to:

Dr. Dina Shafey  
Associate Director  
Office of Research Ethics

10. File Number

Please reference the studies file number when making a complaint: 2011s0629

Statement of Consent

I have read and understand the above information and I consent to participate in this survey: Yes/No

## Appendix B.

### Study Debriefing

#### Unable to Participate

Your response indicated that you have **never** provided psychological treatment (therapy) to a patient with psychopathic personality disorder or borderline personality disorder. As a result, you will be unable to participate in this study.

If this was an error please contact the study administrator: [REDACTED]

We apologize and thank you for your time. Should you have any further questions, please contact:

Ashley Murray, M.A.  
Simon Fraser University  
[REDACTED]

You may also direct concerns to:

Dr. Dina Shafey  
Associate Director  
Office of Research Ethics  
[REDACTED]

Please reference the study number when reporting a complaint: 2011s0629  
Again, thank you for your time.

## No Consent

You have indicated that you do **not** consent to participate in this study. If this was an error please contact the study administrator: [REDACTED]

As a reminder, you are free to withdraw at any time without prejudice or negative consequence. Your decision not to participate will not affect your current or future relations with Simon Fraser University.

Please direct concerns or complaints to:

Dr. Dina Shafey  
Associate Director  
Office of Research Ethics  
[REDACTED]

Please reference the study number when reporting a complaint: 2011s0629

Thank-you for your time.

## Survey Completed

Thank you for your participation!

Your responses will help identify current trends in the treatment and assessment of personality disorders. With this information, we hope to develop new and unified strategies to better treat individuals with these disorders. Your participation was invaluable in this process. Your responses on this survey will remain confidential and your identity will not be connected to your responses in any way. The anonymous data will be stored in an encrypted data base.

Should you be experiencing any psychological discomfort from participating in this survey please contact Ashley Murray, [REDACTED], the principle investigator; she will provide references for mental health professionals in your area. If you are experiencing a clinical emergency please call emergency services in your area.

Additionally, if you have any concerns about your treatment in this study, please direct them to:

Dr. Dina Shafey  
Associate Director  
Office of Research Ethics  
[REDACTED]

If you would like to be entered into a drawing for one of four \$50 gift cards or one of 20 \$10 gift cards, please follow the instructions on the next page. Your email address will not be connected with your responses on the survey in any way.

\*\*\*IMPORTANT: You must write down the following password and enter it when prompted to be entered into the prize draw:

Password: [REDACTED]

Again, thank you for your participation!

Please click SUBMIT below. It may take a few moments.

## Submission Complete

Your submission is complete!

Again, thank you for your interest in this study.

If you completed the survey and would like to enter the draw to win one of four \$50 gift cards or one of 20 \$10 gift cards, please click on the link below. Remember, you will need your password from the debriefing page. Only those individuals who completed the survey will have received a password on their debriefing screen.

Link to enter the prize draw: [Link here]

If you do not want to enter the prize draw, or are ineligible as a result of not being able to complete the survey, you may close your browser to exit the survey. Thank you.

*If participants follow the link above, they will be directed to a login screen for the separate web form. They will be asked to enter the password given to them on the debriefing screen. The form will look like this:*

Please enter the password provided to you on the debriefing form. Only individuals who completed the survey would have received a password on their debriefing screen. Enter it below and click "Login" to continue.

Please enter your password here:

*[After entering the password and logging in, participants will be shown this screen:]*

Enter your email address below to be entered into the draw for one of four \$50 electronic gift cards or one of 10 \$20 gift cards: [Enter email address here]

Thank you for your time! You have now been entered in the draw. Please close your browser to exit the survey.

## Appendix C.

### Online Survey Template

[\*\*\*\*PARAGRAPHS IN BRACKETS THAT ARE ITALICIZED ARE EXPLANATIONS TO REVIEWERS AND WILL NOT BE SHOWN TO PARTICIPANTS: \*\*\*\*]

- Thank you for expressing interest in participating in this study. The authors of this project are examining clinician's experiences and beliefs about the treatment of patients with personality disorders. In order to participate in this study you need to have treated a patient with a personality disorder.

Have you provided psychological treatment (therapy) to a patient with psychopathic personality disorder (also known as: psychopathy, sociopathy, dissocial personality disorder, antisocial personality disorder)?

*[If the participant clinician responds "No", that he/she has never treated a patient with PPD, he/she will then be asked if he/she has treated a patient with BPD. Specifically, the screen will read: ]*

- Have you provided psychological treatment (therapy) to a patient with borderline personality disorder (also known as: borderline personality, emotionally unstable personality disorder)?

*[If the participant responds in the affirmative, he/she will answer study questions only about a prior patient with BPD. If the participant answers "No", that he/she has never treated BPD either, he/she will be directed to the debriefing screen for participants who cannot participate in the study (because they have not treated PPD or BPD).]*

## Therapist Demographics

Instructions: Please answer the following questions about yourself.

- What is your gender? (Male/Female)
- What is your current age? (textbox for response)
- Are you an ethnic minority where you treat patients? (yes/no)
- What country do you currently practice in? (textbox for response)
- Please indicate your predominant theoretical orientation (You may only rank 2):
  - Cognitive-behavioral
  - Behavioral
  - Cognitive
  - Dialectical Behavioral Therapy
  - Mentalization Based Therapy
  - Schema Therapy
  - Cognitive Analytic Therapy
  - Existential/humanistic
  - Social learning theory
  - Psychodynamic/analytic
  - Interpersonal
  - Family systems
  - Integrative
  - Eclectic
  - Other : \_\_\_\_\_
- Which of the following therapeutic treatments are you trained in (check all that apply):
  - Cognitive-behavioral
  - Behavioral
  - Cognitive
  - Dialectical Behavioral Therapy
  - Mentalization Based Therapy
  - Schema Therapy
  - Cognitive Analytic Therapy
  - Existential/humanistic
  - Social learning theory
  - Psychodynamic/analytic
  - Interpersonal
  - Family systems
  - None
  - Other: \_\_\_\_\_

- What is your HIGHEST level of training (YOU MAY CHOOSE MORE THAN ONE)?
  - Masters Level
  - Doctoral Level Student
  - Intern / Resident
  - Licensed Health Professional
  - Licensed Mental Health Professional
  - Counseling degree
  - Psy.D.
  - Ph.D.
  - M.D.
  - R.N. / Nursing degree
  - Registered Psychologist
  - Other \_\_\_\_\_
  
- What is your primary specialization (PLEASE CHOOSE ONLY ONE)?
  - Psychology
  - Psychiatry
  - Licensed Mental Health Specialist
  - Psychoanalyst
  - Marriage and Family Therapist
  - Licensed Professional Counselor
  - Substance Abuse / Addictions Counselor
  - Clinical Social Worker
  - Psychiatric Nurse
  - Mental Health Case Manager
  - Medical Doctor
  - Medical Specialist
  - Other \_\_\_\_\_

## Therapist Practices

Instructions: Please answer the following questions about your clinical work.

- When was the last time you provided therapy to patients?
  - Currently to within the past year
  - 1-5 years ago
  - 5-10 years ago
  - Over 10 years ago
  
- How long have you practiced therapy?
  - Less than 1 year
  - 1-5 years
  - 5-10 years
  - 10-20 years
  - Over 20 years
  
- Approximately how many patients have you provided individual therapy to?
  - 1-50
  - 51-100
  - 101-250
  - Over 250
  - None
  
- Approximately how many therapy groups have you led or co-led?
  - 1-50
  - 51-100
  - 101-250
  - Over 250
  - None
  
- Have you provided therapy to more patients with a DSM-IV-TR Axis I disorder OR an Axis II disorder as their presenting problem?
  - I have treated more patients with an Axis I disorder (e.g., Depression, Bipolar, Schizophrenia) as their presenting problem
  - I have treated more patients with an Axis II disorder (e.g., a Personality Disorder) as their presenting problem
  - I have treated approximately an equal number of Axis I and Axis II disordered patients
  
- Do you prefer to treat patients with a DSM-IV-TR Axis I OR Axis II disorder as the presenting problem?
  - I prefer to treat patients with an Axis I disorder (e.g., Depression, Bipolar, Schizophrenia)

- I prefer to treat patients with an Axis II disorder (e.g., Personality Disorders)
  - I have no preference
- Do you primarily provide therapy to:
  - Children (Ages 1-12)
  - Adolescents (Ages 13-17)
  - Adults (Ages 18 and Older)
- Are your therapy patients primarily:
  - Male
  - Female
  - I generally have an equal amount of male and female patients
- Rank which settings you primarily see patients in (ONLY RANK TOP TWO):
  - Hospital/Inpatient Ward
  - Inpatient Community Clinic
  - Outpatient/Community Clinic
  - Specialized Clinic (e.g., DBT Center, Eating Disorders Clinic)
  - Outpatient Forensic Clinic
  - Forensic Hospital
  - Prison/Jail/Correctional Institution
  - School/University Clinic
  - Private Practice Office
  - Other \_\_\_\_\_
- What format do you mainly conduct therapy in?
  - Individual Treatment
  - Group Treatment
  - I conduct individual and group treatment about the same amount
- Is your work with patients primarily assessment focused or treatment focused?
  - Assessment Focused
  - Treatment Focused
  - I do equal amounts of assessment and treatment
- Approximately how many psychological assessments (e.g., competency, violence risk, suicide) have you conducted?
  - 0-50
  - 51-100
  - 101-250
  - Over 250
- Please indicate the TWO primary frameworks you use to diagnose patients with a personality disorder (ONLY RANK TWO):
  - DSM-IV-TR Criteria

- ICD-10 Criteria
- Specialized Assessment Tool (e.g., PCL-R, DIB-R)
- Personality Inventories (e.g., MMPI-2, MCMI-III, PAI)
- Other\_\_\_\_\_

**Psychopathic Personality Disorder (PPD)**  
[OR for participants answering the BPD survey questions:]  
**Borderline Personality Disorder (BPD)**

Instructions: Please answer the following questions about your clinical work with patients with psychopathic personality disorder (PPD; also known as: psychopathy, sociopathy, dissocial personality disorder, antisocial personality disorder).

[OR on BPD survey questions:] Instructions: Please answering the following questions about your clinical work with patients with borderline personality disorder (BPD; also known as: borderline personality, emotionally unstable personality disorder)

- In your opinion or experience, what is the best method to treat psychopathic personality disorder [OR BPD for participants answering only questions about BPD]? (enter response in the textbox)
  
- Approximately how many patients with psychopathic personality disorder [OR BPD for participants answering only questions about BPD] have you treated?
  - 1-50
  - 51-100
  - 101-250
  - Over 250
  
- Approximately how many patients with psychopathic personality disorder [OR BPD for participants answering only questions about BPD] have you assessed?
  - 1-50
  - 51-100
  - 101-250
  - Over 250
  - None
  
- Have you received any specialty training for working with patients with psychopathic personality disorder [OR borderline personality disorder for participants answering the BPD questions]? (yes/no) – If yes specify: (enter answer in text box)
  
- Please indicate what diagnostic framework you use to determine if a patient has psychopathic personality disorder:
  - DSM-IV-TR Antisocial Personality Disorder Criteria
  - ICD-10 Dissocial Personality Disorder
  - Hare Psychopathy Checklist - Revised (e.g., PCL-R, PCL:SV, PCL:YV)
  - Personality Inventories (e.g., MMPI-2, MCMI-III, PAI)
  - Other \_\_\_\_\_

- *[OR on the BPD survey questions]:* Please indicate what diagnostic framework you use to determine if a patient has borderline personality disorder:
  - DSM-IV-TR Borderline Personality Disorder Criteria
  - ICD-10 Emotionally Unstable Personality Disorder Criteria
  - Specialized BPD assessment tools (e.g., DIB-R, ZAN-BPD, MSI-BPD)
  - Personality Inventories (e.g., MMPI-2, MCMI-III, PAI)
  - Other \_\_\_\_\_

## Symptoms

Instructions: Below is a list of symptoms common in personality disorders. Please indicate how characteristic you think each symptom is of PSYCHOPATHIC PERSONALITY DISORDER (PPD; also known as: psychopathy, sociopathy, dissocial personality disorder, antisocial personality disorder) .

*[Or on BPD survey questions:]* Instructions: Below is a list of symptoms common in personality disorders. Please indicate how characteristic you think each symptom is of BORDERLINE PERSONALITY DISORDER (BPD; also known as: borderline personality, emotionally unstable personality disorder).

	Not at all Characteristic	Somewhat Characteristic	Moderately Characteristic	Very Characteristic
1. <b>Idealizing</b> (idolizing, admiring, flattering)				
2. <b>Deceitful</b> (dishonest, deceptive, duplicitous)				
3. <b>Passive</b> (submissive, unassertive, ineffectual)				
4. <b>Self-destructive</b> (self-harmful, suicidal, self-abusive)				
5. <b>Rejecting</b> (disparaging, deprecating, denigrating)				
6. <b>Antagonistic</b> (hostile, disagreeable, contemptuous)				
7. <b>Unempathic</b> (uncompassionate, cruel, callous)				
8. <b>Uncommitted</b> (unfaithful, undevoted, disloyal)				
9. <b>Restless</b> (overactive, fidgety, energetic)				
10. <b>Self-aggrandizing</b> (self-important, conceited, condescending)				
11. <b>Lacks emotional depth</b> (unemotional, indifferent, inexpressive)				
12. <b>Reckless</b> (risk-taking, rash, impetuous)				

13. **Lacks emotional stability** (temperamental, moody, irritable)
14. **Resistant** (reluctant, obstructive, contrary)
15. **Disruptive** (disobedient, unruly, unmanageable)
16. **Angry** (resentful, irate, enraged)
17. **Self-conscious** (embarrassed, bashful, awkward)
18. **Intolerant** (narrow-minded, bigoted, hypercritical)
19. **Thinking is illogical** (irrational, erratic, inconsistent)
20. **Diffident** (lack self-confidence, lack self-reliance, lack independence)
21. **Cautious** (hesitant, uncertain, unsure)
22. **Aggressive** (threatening, violent, bullying)
23. **Self-critical** (self-loathing, self-deprecating, sense of being bad)
24. **Covetous** (jealous, possessive, clingy)
25. **Lacks pleasure** (pessimistic, gloomy, unenthusiastic)
26. **Perfectionist** (fussy, precise, meticulous)
27. **Sense of uniqueness** (extraordinary, exceptional, special)
28. **Considerate** (thoughtful, kind, understanding)
29. **Lacks Perseverance** (idle, undisciplined, unconscientious)
30. **Suspicious** (distrustful, guarded, hypervigilant)

31. **Manipulative** (devious, exploitative, calculating)
32. **Detached** (remote, distant, cold)
33. **Shy** (introverted, timid, withdrawn)
34. **Hyper-sexual** (promiscuous, seductive, flirtatious)
35. **Emotionally numb** (bored, apathetic, empty)
36. **Conscientious** (careful, reliable, diligent)
37. **Unreliable** (undependable, untrustworthy, irresponsible)
38. **Lacks concentration** (distractible, inattentive, unfocused)
39. **Strange** (bizarre, eccentric, odd)
40. **Uncaring** (inconsiderate, thoughtless, neglectful)
41. **Insincere** (superficial, slick, evasive)
42. **Lacks planfulness** (aimless, unsystematic, disorganized)
43. **Sense of invulnerability** (invincible, indestructible, unbeatable)
44. **Sense of entitlement** (demanding, insistent, deserving)
45. **Dependent** (needy, helpless, vulnerable)
46. **Self-centered** (egocentric, selfish, self-absorbed)
47. **Garrulous** (glib, verbose, pretentious)
48. **Inflexible** (stubborn, ridged, uncompromising)
49. **Emotionally expressive** (exaggerated,

overemotional, overdramatic)

50. **Unstable self-concept** (sense of self: incomplete chaotic, liable)
51. **Domineering** (arrogant, overbearing, controlling)
52. **Restrained** (calm, reserved, inhibited)
53. **Sad** (miserable, despondent, desolate)
54. **Anxious** (concerned, worried, fearful)
55. **Lacks Anxiety** (unconcerned, unworried, fearless)
56. **Self-justifying** (minimizing, denying, blaming)
57. **Disturbed sense of reality** (sense of: unreality, strangeness, alienation)
58. **Lacks remorse** (unrepentant, unapologetic, unashamed)

## Patient Demographics

Instructions: For the following questions, think back to a patient YOU TREATED with psychopathic personality disorder (PPD; also known as: psychopathy, sociopathy, dissocial personality disorder, antisocial personality disorder). Please choose a client that you completed treatment with. Answer the following questions about that patient.

[Or for participants answering the BPD survey questions:] Instructions: For the following questions, think back to a patient YOU TREATED with borderline personality disorder (BPD; also known as: borderline personality, emotionally unstable personality disorder). Please choose a client that you completed treatment with. Answer the following questions about that patient.

- What was the gender of your patient with psychopathic personality disorder [Or borderline personality disorder on BPD survey questions]? (Male/Female)
- Approximately how old was this patient? (enter response in textbox)
- Was this patient an ethnic minority where he/she resided? (Yes/No)
- What country did this patient live in? (enter response in textbox)
- Did your patient have strong social supports (e.g., a significant other, close friends or family members) at the onset of therapy with you? (yes/no)
- Did your patient have a criminal record?
  - Yes
  - No
  - I don't know
- Were you also treating a comorbid mental disorder in this patient? (yes/no) – If yes, specify: (enter response in the textbox)
- Was this patient taking medications to address his/her psychopathic personality disorder [or borderline personality disorder for participants answering the questions about a BPD patient] symptoms at the onset of therapy with you? (yes/no) – If yes, specify what medications (enter response in the textbox)
- What setting(s) did you see this patient in?
  - Hospital / Inpatient Ward
  - Inpatient Community Clinic
  - Outpatient Community Clinic
  - Specialized Clinic (e.g., DBT Clinic, Eating Disorder Clinic)
  - Outpatient Forensic Clinic
  - Forensic Hospital

- Prison / Jail / Correctional Institution
  - School / University Clinic
  - Private Practice
  - Other \_\_\_\_\_
- Did you provide individual therapy to this patient? (Yes/No)
- Below is a list of interventions. Please indicate which intervention(s) were attempted with your patient. Specifically, indicate whether treatment was provided in group format AND which setting it occurred in (Community, Inpatient, or Correctional). CHECK ALL THAT APPLY:
    - Group Treatment Format
    - Community Based
    - Inpatient/Hospital Based
    - Correctional Institution Based
    - Anger Management
    - Sex Offender Treatment
    - Violence Prevention / Violence Management
    - Social Skills Training
    - Drug and Alcohol Treatment Program (Including Relapse Prevention)
    - Problem Solving
    - Personality Disorders Treatment
    - Specialized Program (e.g., DBT, Eating Disorders Group)
    - Competency Restoration
    - Depression / Anxiety
    - Other \_\_\_\_\_
- Which therapeutic orientation(s) did you use to treat this patient (YOU MAY RANK 3):
    - Cognitive-Behavioral
    - Behavioral
    - Cognitive
    - Dialectical Behavioral Therapy
    - Psychodynamic
    - Existential/Humanistic
    - Social Learning Theory
    - Interpersonal
    - Family Systems
    - Mentalization Based Therapy
    - Schema Therapy
    - Cognitive Analytic Therapy
    - Psychoanalytic
    - Other \_\_\_\_\_
- Please answer the following questions regarding your feelings about treating this patient at the ONSET of treatment

- Initially, how treatable did you think this patient was?
  - Not at all
  - Somewhat
  - Moderately
  - Very much so
  
- Initially, how willing were you to treat this patient?
  - Not at all
  - Somewhat
  - Moderately
  - Very much so
  
- Initially, how optimistic were you about this patient's symptoms improving?
  - Not at all
  - Somewhat
  - Moderately
  - Very much so
  
- Initially, how confident were you about treating this patient effectively?
  - Not at all
  - Somewhat
  - Moderately
  - Very much so
  
- Please indicate if the patient engaged in any of the following therapy interfering behaviors during treatment with you (CHECK ALL THAT APPLY):
  - Patient did not attend sessions regularly
  - Patient did not complete assignments
  - Patient did not engage in session discussions
  - Patient became aggressive in session
  - Patient appeared to be manipulating the therapist
  - None
  - Other\_\_\_\_\_
  
- Please indicate whether you devoted time during treatment to address any of the following topics with this patient in therapy (CHECK ALL THAT APPLY):
  - Being physically abused as a child
  - Being sexually abused as a child
  - Being emotionally abused as a child
  - Being neglected as a child
  - Grieving the loss of a parent, sibling or loved one
  - None
  
- Approximately how long did you treat this patient?
  - 1 Month or Less

- Several months
  - A year or so
  - Several years
- Do you think this treatment length was appropriate/adequate for the treatment of this patient?
  - Yes
  - No, I feel we needed MORE sessions than we were able to have
  - No, I feel we could have used LESS sessions
  - The amount of sessions did not impact the patient's treatment progress
- How often did you see this patient for treatment sessions?
  - Once a Month or Less
  - Two-Three Times a Month
  - Four or More Times a Month
- Do you think this frequency of sessions was appropriate/adequate for the treatment of this patient?
  - Yes
  - No, I feel we needed MORE frequent sessions
  - No, I feel we could have used LESS frequent sessions
  - The frequency of sessions did not impact the patient's treatment progress

## Patient Symptoms

INSTRUCTIONS: Below is a list of 33 symptoms common in personality disorders. Please indicate which of the following symptoms you observed in your patient with psychopathic personality disorder (PPD; also known as: psychopathy, sociopathy, dissocial personality disorder, antisocial personality disorder) that you described on the previous page.

[Or on the BPD questions survey:] INSTRUCTIONS: Below is a list of 27 common symptoms of personality disorders. Please indicate which of the following symptoms you observed in your patient with borderline personality disorder (BPD; also known as: borderline personality, emotionally unstable personality disorder) that you described on the previous page.

[The 33 CAPP symptoms (or 27 CABP symptoms for participants completing the BPD survey questions) will be listed one at a time over 3 screens (see Appendix C which lists CAPP and CABP items), and for each symptoms the following questions will be asked:]

- [CAPP (Or CABP for BPD survey questions) Symptom (e.g., **Lacks Pleasure (pessimistic, gloomy, unenthusiastic):**]
  - How severe was this symptom in your patient at the beginning of treatment? (*Symptom Not Present, Mild, Moderate, Severe*)
  - How severe was this symptom in your patient at the end of treatment? (*Symptom Not Present, Mild, Moderate, Severe*)

If this symptom was NEVER present in your patient during treatment, skip down to the next symptom.

If this symptom was ever PRESENT during treatment, please answer the following questions:

- Did it improve due to treatment? (*Not at All, A Little, Somewhat, A Lot*)
- Did it worsen due to treatment? (*Not at All, A Little, Somewhat, A Lot*)

If this symptom changed as a result of treatment:

- How long did it take to improve? (*Not Applicable, 1 Month or Less, Several Months, 1 Year or More*)
- How long did it take to worsen? (*Not Applicable, 1 Month or Less, Several Months, 1 Year or More*)

## Patient Treatment Outcomes

INSTRUCTIONS: Answer the following questions about your treatment experience with your psychopathic personality disordered (PPD; also known as: psychopathy, sociopathy, dissocial personality disorder, antisocial personality disorder) patient.

[Or for BPD survey questions:] INSTRUCTIONS: Answer the following questions about your treatment experience with your BPD patient (also known as: borderline personality, emotionally unstable personality disorder).

- How do you think your patient's overall severity of psychopathy [Or *borderline personality disorder on the BPD survey questions*] changed as a result of treatment?
  - Significantly Worse
  - Moderately Worse
  - Slightly Worse
  - No Change
  - Slightly Improved
  - Moderately Improved
  - Significantly Improved
  
- Looking back, is there anything you think you would/could have done differently to improve your patient's outcomes? Please specify: (enter response in the textbox)
  
- IF YOUR PATIENT'S SYMPTOMS IMPROVED: What about the therapy that you did with him/her do you think led to his/her improvements? (enter response in textbox)
  
- IF YOUR PATIENT'S SYMPTOMS DID NOT IMPROVE: Why do you think his/her symptoms did not improve? (enter response in textbox)
  
- Do you feel the treatment your patient received was appropriate for his/her severity of symptoms/presenting problem? (Yes/No)
  
- Please indicate the potential barriers that may have impacted the effectiveness of the interventions you attempted (CHECK ALL THAT APPLY):
  - Staff shortage
  - Lack of training on therapeutic techniques
  - Lack of funding
  - Lack of availability of appropriate treatment programs
  - Time limitations of treatment
  - None
  - Other \_\_\_\_\_

- Please indicated how each of the following therapeutic challenges impacted the treatment you provided to your PPD patient (or BPD for participants answering questions about a BPD patient): (*Not a challenge, Slight Challenge, Moderate Challenge, Significant Challenge*)
  - Developing a therapeutic alliance
  - Therapy interfering behaviors
  - Self-destructive behaviors of the client
  - Patient not attending sessions regularly
  - Patient suicidal/parasuicidal behaviors
  - Patient anger/aggression
  - Patient ambivalence towards treatment
  - Patient's lack of motivation to change
  - Patient lacked insight into problems/symptoms
  - Feeling manipulated by the patient
  - The patient's existing symptoms
  - My own negative feelings about the client/frustration
  - Other \_\_\_\_\_
  
- Rate your working alliance formed with the patient (e.g., your bond, agreement on treatment goals)
  - Poor
  - Slight
  - Moderate
  - Good
  - Excellent
  
- Rate your patient's motivation to engage in the therapy process (e.g., commitment to treatment, readiness to change):
  - Poor
  - Slight
  - Moderate
  - Good
  - Excellent
  
- Rate the psychological mindedness of your patient (e.g., ability of the patient to understand their own behavior, empathize with the feelings of others, use insights to change behavior):
  - Poor
  - Slight
  - Moderate
  - Good
  - Excellent
  
- If your patient was taking medications to address his/her psychopathic personality disorder symptoms, did his/her dosage of medication reduce (or cease) as a result of his/her participation in therapy with you?

- Yes
  - No
  - Not Applicable
  - Optional comments about medication: (enter response in textbox)
- 
- Did your patient's social support system improve or grow as a result of his/her participation in therapy with you? (yes/no)
  - Is there anything further you would like to add about the treatment of psychopathic personality disorder that I have not asked you? Please specify: (enter response in textbox)

## Appendix D.

### Attitudes Toward Personality Disorders Questionnaire (APDQ)

INSTRUCTIONS: Please answer the following questions to express your true feelings about patients with psychopathic personality disorder (PPD; also known as: psychopathy, sociopathy, dissocial personality disorder, antisocial personality disorder). Remember, this survey is anonymous.

*[Or on BPD survey questions:]* INSTRUCTIONS: Please answer the following questions to express your true feelings about patients with borderline personality disorder (BPD; also known as: borderline personality, emotionally unstable personality disorder). Remember, this survey is anonymous.

*[On the BPD survey questions 'borderline personality disordered patients' will be substituted for 'psychopathic patients' in the following questions]*

	Never	Some of the Time	Most of the Time	Always
1. I feel psychopathic patients are treatable*				
2. I like psychopathic patients				
3. I feel frustrated with psychopathic patients				
4. I feel drained by psychopathic patients				
5. I respect psychopathic patients				
6. I feel fondness and affection for psychopathic patients				
7. I feel vulnerable in psychopathic patients' company				
8. I have a feeling of closeness with psychopathic patients				
9. I feel uncomfortable or uneasy with psychopathic patients				
10. I feel I am wasting my time with psychopathic patients				
11. I feel manipulated or used by psychopathic patients				
12. I am excited to work with psychopathic patients				
13. I feel pessimistic about psychopathic patients				
14. I feel resigned about psychopathic patients				

15. I admire psychopathic patients				
16. I feel helpless in relation to psychopathic patients				
17. I feel frightened of psychopathic patients				
18. I feel angry towards psychopathic patients				
19. I enjoy spending time with psychopathic patients				
20. Interacting with psychopathic patients makes me shudder				
21. Psychopathic patients make me feel irritated				
22. I feel warm and caring toward psychopathic patients				
23. I feel protective toward psychopathic patients				
24. I feel oppressed or dominated by psychopathic patients				
25. I feel that psychopathic patients are alien, other, strange				
26. I feel understanding toward psychopathic patients				
27. I feel powerless in the presence of psychopathic patients				
28. I feel happy and content in psychopathic patients' company				
29. I feel outmaneuvered by psychopathic patients				
30. Caring for psychopathic patients makes me feel satisfied and fulfilled				
31. I feel exploited by psychopathic patients				
32. I feel patient when caring for psychopathic patients				
33. I feel able to help psychopathic patients				
34. I feel interested in psychopathic patients				
35. I feel unable to gain control of the situation with psychopathic patients				
36. I feel intolerant. I have difficulty tolerating psychopathic patients' behavior				

*Note.* \*This item was added by the current author and is not part of the APDQ.

## Appendix E.

### Comprehensive Assessment of Psychopathic Personality (CAPP) Items by Domain

#### Attachment

- Unempathic (uncompassionate, cruel, callous)
- Uncommitted (unfaithful, undevoted, disloyal)
- Detached (remote, distant, cold)
- Uncaring (inconsiderate, thoughtless, neglectful)

#### Behavioural

- Disruptive (disobedient, unruly, unmanageable)
- Reckless (rash, impetuous, risk-taking)
- Aggressive (threatening, violent, bullying)
- Restless (overactive, fidgety, energetic)
- Unreliable (undependable, untrustworthy, irresponsible)
- Lack perseverance (idle, undisciplined, unconscientious)

#### Cognitive

- Intolerant (narrow-minded, bigoted, hypercritical)
- Inflexible (stubborn, rigid, uncompromising)
- Suspicious (distrustful, guarded, hyper-vigilant)
- Lacks planfulness (aimless, unsystematic, disorganized)
- Lack concentration (distractible, inattentive, unfocused)

#### Dominance

- Manipulative (devious, exploitative, calculating)
- Deceitful (dishonest, deceptive, duplicitous)
- Garrulous (glib, verbose, pretentious)
- Domineering (arrogant, overbearing, controlling)
- Antagonistic (hostile, disagreeable, contemptuous)
- Insincere (superficial, slick, evasive)

#### Emotional

- Lack remorse (unrepentant, unapologetic, unashamed)
- Lack pleasure (pessimistic, gloomy, unenthusiastic)
- Lack emotional depth (unemotional, indifferent, inexpressive)
- Lack emotional stability (temperamental, moody, irritable)
- Lack anxiety (unconcerned, unworried, fearless)

#### Self

- Self-centered (egocentric, selfish, self-absorbed)
- Self-justifying (minimizing, denying, blaming)
- Sense of uniqueness (sense of being: extraordinary, exceptional, special)
- Self-aggrandizing (self-important, conceited, condescending)
- Sense of invulnerability (sense of being: invincible, indestructible, unbeatable)
- Sense of entitlement (demanding, insistent, sense of being deserving)

- Unstable self-concept (labile, incomplete, and chaotic sense of self)

**Foils**

- Self-conscious (embarrassed, bashful, awkward)
- Shy (introverted, timid, withdrawn)
- Considerate (thoughtful, kind, understanding)
- Strange (bizarre, eccentric, odd)
- Perfectionist (fussy, precise, meticulous)
- Restrained (calm, reserved, inhibited)
- Conscientious (careful, reliable, diligent)
- Cautious (hesitant, uncertain, unsure)

## Appendix F.

### Comprehensive Assessment of Borderline Personality (CABP) Items by Domain

#### Attachment

- Detached (cold, remote, distant)
- Rejecting (disparaging, deprecating, denigrating)
- Dependent (needy, helpless, vulnerable)
- Idealizing (idolizing, admiring, flattering)
- Covetous (jealous, possessive, clingy)

#### Behavioural

- Reckless (risk-taking, rash, impetuous)
- Disruptive (unruly, unmanageable, disobedient)
- Self-destructive (self-harmful, suicidal, self-abusive)
- Hyper-sexual (promiscuous, seductive, flirtatious)

#### Cognitive

- Suspicious (hypervigilant, guarded, distrustful)
- Lacks planfulness (aimless, unsystematic, disorganizing)
- Inflexible (stubborn, rigid, uncompromising)
- Disturbed sense of reality (sense of: unreality, strangeness, alienation)
- Thinking is illogical (irrational, erratic, inconsistent)

#### Dominance

- Deceitful (dishonest, deceptive, duplicitous)
- Manipulative (devious, exploitative, calculating)
- Resistant (reluctant, obstructive, contrary)
- Passive (submissive, unassertive, ineffectual)

#### Emotional

- Lacks emotional stability (temperamental, moody, irritable)
- Emotionally numb (bored, apathetic, empty)
- Anxious (concerned, worried, fearful)
- Sad (miserable, despondent, desolate)
- Emotionally expressive (exaggerated, overemotional, overdramatic)
- Angry (resentful, irate, enraged)

#### Self

- Unstable self-concept (incomplete, chaotic, or labile sense of self)
- Self-critical (self-loathing, self-deprecating, sense of being bad)
- Diffident (lacks self-confidence, lacks self-reliance, lacks independence)

## Appendix G.

### Internal Consistency Results of the CAPP, CABP and APDQ

Table G1

*Cronbach's Alphas for CAPP and CABP Symptom Change Ratings between PPD and BPD Groups*

CAPP/CABP Change Score	Psychopathic PD		Borderline PD	
	N, # of Items	$\alpha$ (MIC; Range)	N, # of Items	$\alpha$ (MIC; Range)
Total Score	104 33 items	0.94 (0.33; - 0.11 – 0.71)	103 27 items	0.92 (0.29; - 0.16 – 0.66)
Attachment	136 4 items	0.78 (0.47; 0.34 – 0.61)	116 5 items	0.52 (0.18; - 0.07 – 0.49)
Behavioural	128 6 items	0.79 (0.38; 0.16 – 0.61)	115 4 items	0.62 (0.29; 0.10 – 0.52)
Cognitive	136 5 items	0.74 (0.36; 0.20 – 0.51)	118 5 items	0.69 (0.30; 0.12 – 0.43)
Dominance	131 6 items	0.79 (0.38; 0.19 – 0.55)	118 4 items	0.66 (0.32; 0.08 – 0.56)
Emotional	130 5 items	0.56 (0.20; - 0.05 – 0.41)	114 6 items	0.80 (0.40; 0.17 – 0.65)
Self	130 7 items	0.80 (0.36; - 0.03 – 0.56)	120 3 items	0.76 (0.51; 0.50 – 0.53)

*Note.*  $\alpha$  = Cronbach's alpha, MIC = Mean Inter-Item Correlation. Range = the range of the MIC. All  $\alpha$  reported are based on standardized items.

Table G2

*Cronbach's Alphas and Mean Inter-Item Correlations for the APDQ between PPD and BPD Groups*

APDQ	Psychopathic PD		Borderline PD	
	N	$\alpha$ (MIC; Range)	N	$\alpha$ (MIC; Range)
Total Score	133	0.91 (0.23; - 0.21 – 0.68)	109	0.93 (0.26; - 0.20 – 0.67)
Loathing	140	0.92 (0.42; 0.12 – 0.68)	117	0.94 (0.49; 0.19 – 0.69)
Vulnerability	144	0.83 (0.32; 0.12 – 0.57)	124	0.83 (0.32; 0.18 – 0.53)
Rejection	148	0.62 (0.25; 0.03 – 0.43)	127	0.68 (0.30; 0.22 – 0.36)
Futility	150	0.79 (0.55; 0.51 – 0.59)	131	0.69 (0.42; 0.32 – 0.60)
Exhaustion	149	0.77 (0.62; 0.62 – 0.62)	129	0.80 (0.67; 0.67 – 0.67)

*Note.*  $\alpha$  = Cronbach's alpha, MIC = Mean Inter-Item Correlation. Range = the range of the MIC. All  $\alpha$  reported are based on standardized items. APDQ Total Score = 35 items, Loathing domain = 15 items, Vulnerability = 10 items, Rejection domain = 5 items, Futility domain = 3 items, Exhaustion domain = 2 items.

## Appendix H.

### Detailed Characteristics of MHPs

Table H1

*Respondent Level of Training and Specialization*

	Psychopathic PD		Borderline PD	
	<i>N</i>	%	<i>N</i>	%
<b>Level of Training<sup>†</sup></b>				
Master's Level	29	19%	25	19%
Doctoral Student	15	10%	29	22%
Intern /Resident	9	6%	15	11%
LHP	2	1%	4	3%
LMHP	16	11%	21	16%
Counseling Degree	0	0%	3	2%
Psy.D.	44	29%	18	14%
Ph.D.	52	35%	46	35%
M.D.	6	4%	8	6%
R.N.	1	1%	1	1%
Licensed Psychologist	20	13%	12	9%
Other	8	5%	4	3%
<b>Clinical Specialization<sup>†</sup></b>	124	83%	99	76%
Psychology	10	7%	11	8%
Psychiatry	1	1%	3	2%
LMH Specialist	1	1%	0	0%
Psychoanalyst	4	3%	3	2%
Licensed Prof. Counselor	4	3%	7	5%
Clinical Social Worker	2	1%	1	1%
Psychiatric Nurse	0	0%	1	1%

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Medical Doctor	3	2%	5	4%
Other				

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*Note.* †Data does not add to 100% as respondents were permitted to choose more than one response. Psychopathic PD  $N=150$ ; Borderline PD  $N=130$ . LHP = Licensed Health Professional; LMHP = Licensed Mental Health Professional; Psy.D. = Doctor of Psychology; Ph.D. = Doctor of Philosophy; M.D. = Medical Doctor; R.N. = Registered Nurse; LMH Specialist = Licensed Mental Health Specialist; Licensed Prof Counselor = Licensed Professional Counselor.

Table H2

*Respondent's Theoretical Orientations and Treatment Settings*

	Psychopathic PD		Borderline PD	
	<i>N</i>	%	<i>N</i>	%
<b>General Theoretical Orientation<sup>†</sup></b>				
CBT*	85	57%	54	39%
DBT	13	9%	26	19%
Psychodynamic	17	11%	12	9%
Existential	9	6%	5	4%
Social Learning	2	1%	1	1%
Interpersonal	4	3%	5	4%
Family Systems	1	1%	3	2%
Mentalization Based	3	2%	7	5%
Schema	4	3%	1	1%
Cognitive Analytic	2	1%	0	0%
Psychoanalytic	5	3%	1	1%
Integrative	11	7%	14	10%
Eclectic	5	3%	5	4%
Other	3	2%	6	4%
<b>Theoretical Orientation Used to Treat the Target Patient<sup>†</sup></b>				
	109	73%	34	26%
CBT*	11	7%	59	45%
DBT	8	5%	8	6%
Psychodynamic	8	5%	3	2%
Existential	3	2%	2	2%
Social Learning	4	3%	7	5%
Interpersonal	0	0%	1	1%
Family Systems	2	1%	7	5%

Mentalization Based	4	3%	1	1%
Schema	2	1%	1	1%
Cognitive Analytic	2	1%	2	1%
Psychoanalytic	6	4%	7	5%
Other				
<b>Primary Treatment Setting<sup>†</sup></b>				
Hospital/Inpatient Ward	26	17%	20	15%
Outpatient Community Clinic	25	17%	42	32%
Specialized Outpatient Clinic	5	3%	18	14%
Outpatient Forensic Clinic	3	2%	1	1%
Forensic Hospital	32	21%	7	5%
Correctional Institution	40	27%	10	8%
School/University Clinic	4	3%	6	5%
Private Practice	15	10%	25	19%
Other	6	4%	8	6%
<b>Target Patient Treatment Setting<sup>†</sup></b>				
Hospital/Inpatient Ward	27	18%	20	15%
Outpatient Community Clinic	20	13%	43	33%
Specialized Outpatient Clinic	6	4%	27	20%
Outpatient Forensic Clinic	3	2%	3	2%
Forensic Hospital	33	22%	4	3%
Correctional Institution	50	33%	7	5%
School/University Clinic	2	1%	10	8%
Private Practice	6	4%	24	18%
Other	7	5%	10	8%

*Note.* \*The categories of cognitive therapy and behavioural therapy were combined into the CBT designation. <sup>†</sup>The percentages do not add up to 100% as some respondents selected more than one option for each category. Psychopathic PD *N* =150; Borderline PD *N* =132. PD = personality disorder. CBT-Based = Cognitive behavioural therapy based treatment. DBT = Dialectical Behavioural Therapy.

## Appendix I.

### Detailed Target Patient Comorbid Diagnoses

Table I1

*Target Patient Detailed Comorbid Mental Illness*

	Psychopathic PD		Borderline PD		p
	N	%	N	%	
Comorbid Mental Illness	93	62%	106	80%	.001
Psychotic Disorder	21	14%	5	4%	.003
Bipolar Disorder	14	9%	12	9%	.94
Depressive Disorder	18	12%	59	45%	< .001
Anxiety Disorder	8	5%	35	27%	< .001
Substance Use Disorder	31	21%	19	14%	.17

*Note.* Psychopathic PD  $N=150$ ; Borderline PD  $N=132$ . PD = personality disorder.  $p$  is the significance value between groups; chi squared tests of independence were used to determine  $p$ . The categories are not exclusive as respondents indicated that several patients presented with multiple comorbid disorders.

## Appendix J.

### Prototypicality Ratings of the CAPP and CABP

Table J1

*Prototypicality Rankings of the CAPP and Foil Symptoms in Relation to Psychopathic PD*

Symptom	N	Mean	SD
Lacks remorse (E)	148	2.78	.49
Deceitful (D)	149	2.76	.50
Unempathic (A)	147	2.73	.52
Manipulative (D)	148	2.72	.51
Insincere (D)	148	2.69	.62
Self-centered (S)	148	2.66	.57
Sense of entitlement (S)	148	2.60	.64
Self-justifying (S)	147	2.60	.71
Lacks emotional depth (E)	149	2.46	.78
Self-aggrandizing (S)	147	2.40	.71
Uncaring (A)	149	2.34	.81
Lacks anxiety (E)	147	2.26	.67
Sense of uniqueness (S)	146	2.25	.82
Sense of invulnerability (S)	149	2.23	.70

Reckless (B)	148	2.20	.77
Domineering (D)	149	2.16	.75
Uncommitted (A)	149	2.16	.76
Antagonistic (D)	148	2.15	.77
Aggressive (B)	146	2.14	.92
Garrulous (D)	148	2.08	.94
Detached (A)	148	2.03	.84
Unreliable (B)	149	1.96	.90
Disruptive (B)	149	1.93	.82
Inflexible (C)	146	1.71	.90
Lacks emotional stability (E)	148	1.70	.88
Suspicious (C)	149	1.69	.82
Intolerant (C)	146	1.57	.85
Lacks perseverance (B)	149	1.32	.88
Restless (B)	146	1.23	.86
Lacks planfulness (C)	147	1.12	1.00
Unstable self-concept (S)	148	.99	.87
Lacks concentration (C)	148	.89	.82
Perfectionist (FOIL)	149	.64	.76
Lacks pleasure (E)	146	.56	.70

Restrained (FOIL)	149	.54	.73
Strange (FOIL)	149	.37	.62
Conscientious (FOIL)	145	.28	.56
Self-conscious (FOIL)	147	.24	.60
Cautious (FOIL)	148	.22	.56
Shy (FOIL)	147	.22	.46
Considerate (FOIL)	148	.14	.40

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*Note.* CAPP = Comprehensive Assessment of Psychopathic Personality item, FOIL = a foil symptom. A = Attachment domain, B = Behavioural domain, C = Cognitive domain, D = Dominance domain, E = Emotional domain, S = Self domain. High prototypicality =  $M > 2.5$

Table J2

*Prototypicality Ratings of the CABP and Foil Symptoms in Relation to Borderline PD*

Symptom	N	Mean	SD
Lacks emotional stability (E)	129	2.87	.40
Unstable self-concept (S)	131	2.74	.52
Self-destructive (B)	132	2.64	.60
Self-critical (S)	130	2.49	.69
Emotionally expressive (E)	130	2.25	.77
Reckless (B)	131	2.06	.80
Idealizing (A)	132	1.98	.87
Rejecting (A)	130	1.91	.86
Angry (E)	132	1.89	.78
Dependent (A)	130	1.88	.82
Anxious (E)	131	1.84	.79
Covetous (A)	130	1.80	.90
Suspicious (C)	131	1.77	.75
Sad (E)	130	1.77	.78
Diffident (S)	132	1.76	.84
Thinking is illogical (C)	130	1.66	.87
Resistant (D)	131	1.44	.77

Manipulative (D)	130	1.35	.98
Self-conscious (FOIL)	132	1.29	.92
Hyper-sexual (B)	131	1.27	.81
Emotionally numb (E)	130	1.25	.93
Inflexible (C)	131	1.24	.88
Disturbed sense of reality (C)	131	1.20	.85
Lacks planfulness (C)	129	1.18	.79
Disruptive (B)	131	1.14	.83
Passive (D)	126	1.01	.83
Deceitful (D)	132	.94	.79
Considerate (FOIL)	131	.88	.76
Cautious (FOIL)	131	.76	.77
Perfectionist (FOIL)	131	.73	.82
Detached (A)	131	.61	.71
Strange (FOIL)	131	.60	.73
Shy (FOIL)	129	.53	.63
Conscientious (FOIL)	130	.48	.61
Restrained (FOIL)	131	.27	.49

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*Note.* CABP = Comprehensive Assessment of Borderline Personality item, FOIL = a foil symptom. A = Attachment domain, B = Behavioural domain, C = Cognitive domain, D =

Dominance domain, E = Emotional domain, S = Self domain. High prototypicality =  $M > 2.5$ .

Table J3

*Prototypicality Domain Comparisons between the Current Study and a Prior Study Using CAPP and Foil Items for Psychopathic PD*

Domains	No. of Items	Current Study		Lim et al., 2013	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Attachment	4	2.32	0.51	2.38	0.23
Behaviour	6	1.80	0.52	2.04	0.42
Cognitive	5	1.39	0.58	1.65	0.19
Dominance	6	2.43	0.43	2.43	0.27
Emotion	5	1.96	0.40	2.04	0.68
Self	7	2.25	0.42	2.31	0.42
Foils	8	0.33	0.34	0.65	0.26

*Note.* The present study rankings were from 0-3 and the Lim et al., 2013 study rankings were originally on a 1-7 scale.

Table J4

*Prototypicality Domain Comparisons between the Current Study and a Prior Study Using CABP and Foil Items for Borderline PD*

Domains	No. of Items	Current Study		Lim et al., 2013	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
CABP Attachment	5	1.63	0.54	1.94	0.54
CABP Behaviour	4	1.78	0.50	2.24	0.37
CABP Cognitive	5	1.41	0.52	1.85	0.28
CABP Dominance	4	1.18	0.52	1.61	0.48
CABP Emotion	6	1.98	0.43	2.17	0.51
CABP Self	3	2.32	0.51	2.21	0.40
Foils	8	0.69	0.43	0.88	0.26

*Note.* The present study rankings were from 0-3 and the Lim et al., 2013 study rankings were from 1-7.

## Appendix K.

### Detailed Presentation of Pre-Treatment Attitudes across PPD and BPD Groups

Table K1

*Comparisons of Pre-Treatment Attitudes between PPD and BPD Group Respondents*

	Psychopathic PD		Borderline PD	
	N	%	N	%
Treatability of Patient				
Not at all	29	19%	2	2%
Somewhat	75	50%	47	35%
Moderately so	38	26%	52	39%
Very	8	5%	31	24%
Willingness to treat				
Not at all	2	1%	1	1%
Somewhat	32	22%	9	7%
Moderately so	56	38%	36	27%
Very	58	39%	86	65%
Optimistic				
Not at all	23	16%	2	2%
Somewhat	75	50%	37	28%
Moderately so	40	27%	65	49%
Very	10	7%	28	21%
Confidence in own abilities				
Not at all	18	12%	3	2%
Somewhat	72	49%	41	32%
Moderately so	48	32%	66	50%
Very	11	7%	21	16%

*Note.* *N* = Number of respondents who endorsed the answer choice; PD = personality disorder.

## Appendix L.

### Detailed Treatment Characteristics

Table L1

*Details of the Treatment Provided to the Target Patient across PPD BPD Groups*

	Psychopathic PD		Borderline PD	
	<i>N</i>	%	<i>N</i>	%
<b>Length of Treatment</b>				
1 Month or Less	11	7%	6	5%
Several Months	69	46%	40	30%
A Year or So	45	30%	40	30%
Several Years	25	17%	46	35%
<b>Frequency of Sessions</b>				
<i>(Per Month)</i>				
≤ Once	9	6%	4	3%
Two to Three Times	49	33%	23	18%
≥ Four Times	92	61%	105	79%
<b>Additional Interventions</b>				
Anger Management	96	64%	35	27%
Sex Offender Treatment	29	19%	1	1%
Violence Management	60	40%	9	7%
Social Skills Training	89	59%	52	39%
Drug Abuse Treatment	65	43%	28	21%
Problem Solving Skills	86	57%	61	46%
Personality Disorder	57	38%	61	46%
Specialized Program	27	18%	67	51%
Competency Restoration	9	6%	8	6%
Depression/Anxiety	46	31%	76	58%

*Note.* Psychopathic PD  $N=150$ ; Borderline PD  $N=132$ . PD = personality disorder.

## Appendix M.

### Correlations among Treatment Outcome Variables

Table M1

*Spearman's Rho Correlations among CAPP Total and Domain Change Scores and the Overall Treatment Outcome Variable*

CAPP	Overall Improvement	CAPP Change Scores					
		Total	Attach	Behav	Cog	Dom	Emotion
Total	.63						
Attachment	.47	.81					
Behavioural	.46	.82	.62				
Cognitive	.47	.78	.63	.61			
Dominance	.61	.89	.66	.70	.64		
Emotional	.48	.79	.69	.53	.54	.62	
Self	.56	.87	.66	.61	.63	.75	.68

*Note.* All correlations significant at  $p < .01$ .  $N = 144 - 147$ . Overall Improvement = the overall PPD symptom severity reduction variable; this variable is dichotomized (Improvement vs. No Improvement).. CAPP Total = CAPP total score change variable, Attach = CAPP Attachment domain change scores, Behav = CAPP Behavioural domain change scores, Cog = CAPP Cognitive domain change scores, Dom = CAPP Dominance domain change scores, Emotion = CAPP Emotional domain change scores, Self = CAPP Self domain change scores.

Table M2

*Spearman's Rho Correlations among CABP Total and Domain Change Scores and the Overall Treatment Outcome Variable*

CABP	Overall Improvement	CABP Change Scores					
		Total	Attach	Behav	Cog	Dom	Emotion
Total	.36						
Attachment	.22	.75					
Behavioural	.29	.80	.55				
Cognitive	.38	.81	.57	.53			
Dominance	.24	.75	.59	.59	.53		
Emotional	.37	.86	.58	.63	.71	.52	
Self	.34	.85	.54	.59	.66	.60	.78

*Note.* All correlations significant at  $p < .01$ .  $N = 126 - 132$ . Overall Improvement = the overall BPD symptom severity reduction variable; this variable is dichotomized (Improvement vs. No Improvement). CABP Total = CAPP total score change variable Attach = CABP Attachment domain change scores, Behav = CABP Behavioural domain change scores, Cog = CABP Cognitive domain change scores, Dom = CABP Dominance domain change scores, Emotion = CABP Emotional domain change scores, Self = CABP Self domain change scores.

## Appendix N.

### CAPP and CABP Change Symptom Rankings

Table N1

*Mean Rankings of CAPP Change Symptoms in the PPD Group*

Symptom	N	Mean	SD
Self-justifying (S)	145	0.59	0.74
Aggressive (B)	141	0.58	0.86
Disruptive (B)	142	0.54	0.84
Domineering (D)	143	0.53	0.67
Reckless (B)	143	0.52	0.66
Suspicious (C)	143	0.51	0.75
Deceitful (D)	144	0.49	0.70
Inflexible (C)	144	0.48	0.70
Lacks emotional stability (E)	143	0.48	0.70
Antagonistic (D)	142	0.46	0.78
Insincere (D)	141	0.42	0.62
Lack remorse (E)	144	0.42	0.67
Sense of entitlement (S)	143	0.41	0.64
Unreliable (B)	140	0.39	0.63
Unempathic (A)	143	0.39	0.69

Lacks pleasure (E)	144	0.37	0.63
Detached (A)	142	0.37	0.64
Manipulative (D)	145	0.36	0.65
Garrulous (D)	142	0.36	0.66
Self Centered (S)	143	0.34	0.60
Lacks emotional depth (E)	142	0.34	0.68
Sense of invulnerability (S)	140	0.33	0.59
Self aggrandizing (S)	141	0.33	0.62
Uncaring (A)	142	0.32	0.63
Unstable self-concept (S)	138	0.30	0.53
Lacks planfulness (C)	144	0.30	0.60
Intolerant (C)	142	0.28	0.62
Lack perseverance (B)	140	0.27	0.57
Uncommitted (A)	140	0.20	0.51
Lacks anxiety (E)	139	0.20	0.53
Sense of uniqueness (S)	143	0.19	0.53
Restless (B)	139	0.16	0.40
Lacks concentration (C)	139	0.14	0.34

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*Note.* The range for change ratings = -3 – 3. CAPP = Comprehensive Assessment of Psychopathic Personality. A = Attachment domain, B = Behavioural domain, C = Cognitive domain, D = Dominance domain, E = Emotional domain, S = Self domain.

Table N2

*Mean Rankings of CABP Change Symptoms in the BPD Group*

Symptom	N	Mean	SD
Self-destructive (B)	126	1.36	1.02
Sad (E)	124	1.07	0.91
Lacks emotional stability (E)	131	1.01	0.74
Self-critical (S)	127	0.87	0.81
Unstable self-concept (S)	128	0.86	0.76
Angry (E)	125	0.85	0.93
Anxious (E)	126	0.83	0.72
Suspicious (C)	126	0.81	0.79
Emotionally expressive (E)	132	0.74	0.82
Diffident (S)	124	0.73	0.76
Reckless (B)	124	0.7	0.89
Resistant (D)	125	0.64	0.78
Emotionally numb (E)	124	0.63	0.8
Dependent (A)	129	0.58	0.77
Thinking is illogical (C)	127	0.53	0.69
Passive (D)	122	0.52	0.67
Inflexible (C)	124	0.49	0.68
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Disturbed sense of reality (C)	124	0.49	0.75
Rejecting (A)	126	0.48	0.77
Disruptive (B)	125	0.48	0.78
Lacks planfulness (C)	125	0.42	0.61
Covetous (A)	125	0.39	0.75
Idealizing (A)	125	0.32	0.82
Hyper-sexual (B)	121	0.3	0.69
Manipulative (D)	125	0.29	0.63
Detached (A)	120	0.28	0.59
Deceitful (D)	128	0.26	0.56

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*Note.* The range for change ratings = -3 – 3. CAPP = Comprehensive Assessment of Psychopathic Personality. A = Attachment domain, B = Behavioural domain, C = Cognitive domain, D = Dominance domain, E = Emotional domain, S = Self domain.

## Appendix O.

### CAPP and CABP Improvement Ratings Data

Table O1

*Pearson's r Correlations between CAPP Change Ratings and CAPP Reported Improvement Ratings in the PPD Group*

CAPP Change Rating	CAPP Improvement Ratings						
	Total	Attach	Behav	Cog	Dom	Emotion	Self
Total	.85	.78	.71	.69	.76	.70	.75
Attachment	.73	.84	.58	.54	.61	.63	.60
Behavioural	.70	.64	.78	.54	.60	.50	.52
Cognitive	.72	.57	.61	.77	.66	.51	.57
Dominance	.79	.66	.64	.62	.84	.59	.69
Emotional	.70	.69	.50	.51	.54	.78	.64
Self	.75	.67	.53	.58	.64	.64	.80

*Note.* All correlations are significant at  $p < .01$  level.  $N = 143 - 147$ . CAPP total and domain change score ratings are in the first column and CAPP improvement total and domain ratings are across the top row.

Table O2

*Pearson's r Correlations between CABP Change Ratings and CABP Reported Improvement Ratings in the BPD Group*

CABP Change Rating	CABP Improvement Ratings						
	Total	Attach	Behav	Cog	Dom	Emotion	Self
Total	.83	.71	.69	.66	.69	.79	.79
Attachment	.67	.71	.50	.53	.56	.56	.59
Behavioural	.59	.42	.66	.44	.50	.55	.56
Cognitive	.75	.66	.51	.75	.56	.70	.70
Dominance	.61	.53	.53	.42	.70	.49	.51
Emotional	.77	.63	.60	.62	.56	.84	.77
Self	.72	.61	.62	.57	.60	.72	.81

*Note.* All correlations are significant at  $p < .01$  level. CABP total and domain change score ratings are in the first column and CABP improvement total and domain ratings are across the top row.

Table O3

*Subjective Report of CAPP Symptom Change Due to Treatment in the Psychopathic PD Group*

Symptom	Symptom Improved		Symptom Worsened	
	N	% Improved	N	% Worsened
Lacks remorse (E)	135	46%	117	3%
Deceitful (D)	132	48%	115	4%
Unempathic (A)	125	52%	111	5%
Manipulative (D)	137	42%	120	6%
Insincere (D)	135	50%	119	5%
Self-centered (S)	133	46%	118	6%
Sense of entitlement (S)	136	52%	121	10%
Self-justifying (S)	138	65%	121	7%
Lacks emotional depth (E)	123	49%	103	5%
Self-aggrandizing (S)	127	51%	113	10%
Uncaring (A)	123	42%	112	7%
Lacks anxiety (E)	101	32%	91	4%
Sense of uniqueness (S)	123	36%	110	5%
Sense of invulnerability (S)	116	45%	103	6%
Reckless (B)	124	56%	106	4%
Domineering (D)	131	66%	108	6%

Uncommitted (A)	107	35%	95	3%
Antagonistic (D)	118	62%	101	11%
Aggressive (B)	120	63%	107	10%
Garrulous (D)	120	53%	103	7%
Detached (A)	114	56%	101	5%
Unreliable (B)	115	49%	99	6%
Disruptive (B)	109	72%	91	9%
Inflexible (C)	129	59%	114	6%
Lacks emotional stability (E)	119	59%	104	11%
Suspicious (C)	122	61%	109	7%
Intolerant (C)	112	38%	101	6%
Lacks perseverance (B)	94	39%	87	5%
Restless (B)	80	40%	69	3%
Lacks planfulness (C)	86	52%	75	3%
Unstable self-concept (S)	86	50%	78	4%
Lacks concentration (C)	75	39%	70	3%
Lacks pleasure (E)	99	79%	90	10%

*Note.* Individual CAPP symptoms are presented down the first column. *N* = Number of respondents who answered the item; Symptom Improved = the respondent endorsed that the CAPP symptom improved due to treatment; Symptom Worsened = the respondent indicated that the CAPP symptom got worse due to treatment. CAPP =

Comprehensive Assessment of Psychopathic Personality. A = Attachment domain, B = Behavioural domain, C = Cognitive domain, D = Dominance domain, E = Emotional domain, S = Self domain.

Table O4

*Subjective Report of CABP Symptom Change Due to Treatment in the Borderline PD Group*

Symptom	Symptom Improved		Symptom Worsened	
	N	% Improved	N	% Worsened
Lacks emotional stability (E)	129	88%	114	14%
Unstable self-concept (S)	126	80%	109	5%
Self-destructive (B)	120	89%	101	9%
Self-critical (S)	123	83%	105	7%
Emotionally expressive (E)	120	88%	111	15%
Reckless (B)	100	76%	87	5%
Idealizing (A)	97	67%	87	20%
Rejecting (A)	91	74%	79	13%
Angry (E)	114	82%	100	14%
Dependent (A)	116	72%	102	12%
Anxious (E)	121	89%	105	16%
Covetous (A)	87	59%	76	8%
Suspicious (C)	111	82%	94	6%
Sad (E)	126	86%	108	11%
Diffident (S)	117	76%	103	4%

Thinking is illogical (C)	106	70%	88	6%
Resistant (D)	105	77%	92	11%
Manipulative (D)	76	59%	64	9%
Hyper-sexual (B)	67	51%	57	9%
Emotionally numb (E)	89	74%	76	4%
Inflexible (C)	96	73%	83	7%
Disturbed sense of reality (C)	83	71%	68	3%
Lacks planfulness (C)	93	66%	81	6%
Disruptive (B)	76	70%	64	13%
Passive (D)	86	71%	74	1%
Deceitful (D)	77	61%	64	17%
Detached (A)	65	60%	55	5%

*Note.* Individual CABP symptoms are presented down the first column. *N* = Number of participants who responded to the CABP item; Symptom Improved = the respondent endorsed that the CABP symptom improved due to treatment; Symptom Worsened = the respondent indicated that the CABP symptom got worse due to treatment. CABP = Comprehensive Assessment of Borderline Personality. A = Attachment domain, B = Behavioural domain, C = Cognitive domain, D = Dominance domain, E = Emotional domain, S = Self domain.

## Appendix P.

### Correlations between Treatment Outcome Variables and Treatment Moderators

Table P1

*Pearson's r Correlations: Overall Change Variable, CAPP Change Ratings with CAPP Prototypicality Ratings in the PPD Group*

Prototypicality	Overall Improve	CAPP Change Scores						
		Total	Attach	Behav	Cog	Dom	Emo	Self
Total	.06	.08	.05	.09	.08	.04	.06	.08
Attachment	-.01	.06	.11	.06	.02	.02	.08	.05
Behavioural	.15	.16	.13	.19*	.12	.11	.13	.13
Cognitive	.09	.07	.01	.05	.06	.06	.05	.06
Dominance	-.03	.06	.04	.06	.07	.05	.02	.04
Emotional	.11	.07	.08	.10	.04	-.01	.09	.09
Self	-.04	-.08	-.11	-.07	-.07	-.08	-.08	-.02

*Note.* \*Significant at .05 level.  $N = 145 - 146$ . Overall Improvement = the overall PPD symptom severity reduction variable. CAPP total and domain change score ratings are in the first row: Total = CAPP Total change score, Attach = CAPP Attachment domain change score; Behav = CAPP Behavioural domain change scores; Cog = CAPP Cognitive domain change scores; Dom = CAPP Dominance domain change scores, Emo = CAPP Emotional domain change scores; Self = CAPP Self domain change scores. CAPP prototypicality total and domain ratings are presented in the first column.

Table P2

*Pearson's r Correlations: Overall Change Variable, CABP Change Ratings with CABP Prototypicality Ratings in the BPD Group*

Prototypicality	Overall Improve	CABP Change Scores						
		Total	Attach	Behav	Cog	Dom	Emo	Self
Total	.04	.24 <sup>†</sup>	.31 <sup>†</sup>	.17*	.20*	.32 <sup>†</sup>	.18*	.14
Attachment	.03	.16	.28 <sup>†</sup>	.12	.15	.22*	.09	.02
Behavioural	.07	.16	.21*	.20*	.06	.26 <sup>†</sup>	.09	.06
Cognitive	.08	.15	.20*	.02	.24 <sup>†</sup>	.18*	.16	.12
Dominance	-.07	.03	.08	.07	-.02	.22*	-.06	-.09
Emotional	.03	.28 <sup>†</sup>	.32 <sup>†</sup>	.15	.21*	.27 <sup>†</sup>	.25 <sup>†</sup>	.28 <sup>†</sup>
Self	.01	.25 <sup>†</sup>	.19*	.23*	.21*	.20*	.23 <sup>†</sup>	.21*

*Note.* <sup>†</sup>Significant at .01 level; \*Significant at .05 level.  $N = 127 - 132$ . Overall Improvement = the overall BPD symptom severity reduction variable. CABP total and domain change score ratings are in the first row: Total = CABP Total change score, Attach = CABP Attachment domain change score; Behav = CABP Behavioural domain change scores; Cog = CABP Cognitive domain change scores; Dom = CABP Dominance domain change scores, Emo = CABP Emotional domain change scores; Self = CABP Self domain change scores. CABP prototypicality total and domain ratings are presented in the first column.

Table P3

*Pearson's r Correlations: Overall Change Variable, CAPP Change Ratings with Attitude Ratings in the PPD Group*

	Overall Improve	CAPP Change Scores						
		Total	Attach	Behav	Cog	Dom	Emo	Self
APDQ Total	-.24 <sup>†</sup>	-.22 <sup>†</sup>	-.17*	-.11	-.13	-.24 <sup>†</sup>	-.26 <sup>†</sup>	-.23 <sup>†</sup>
Loathing	-.19*	-.17*	-.14	-.06	-.14	-.19*	-.21 <sup>†</sup>	-.15
Vulnerable	-.07	-.13	-.08	-.06	-.03	-.17*	-.16	-.17*
Rejection	-.23 <sup>†</sup>	-.18*	-.11	-.16*	-.07	-.15	-.19*	-.21*
Futility	-.34 <sup>†</sup>	-.24 <sup>†</sup>	-.20*	-.16	-.15	-.24 <sup>†</sup>	-.28 <sup>†</sup>	-.23 <sup>†</sup>
Exhaust	-.09	-.10	-.12	-.08	-.02	-.11	-.06	-.13
PPD Treatable	.33 <sup>†</sup>	.26 <sup>†</sup>	.15	.13	.23 <sup>†</sup>	.25 <sup>†</sup>	.26 <sup>†</sup>	.29 <sup>†</sup>
Pt. Treatable	.02	< .01	.06	.03	-.04	-.05	.06	-.02
Willing to Tx	.09	.03	.06	-.04	.03	.05	.03	.04
Optimistic Tx	.09	-.08	-.06	-.11	-.02	-.07	-.04	-.09
Confident Tx	-.01	.04	.04	.02	.06	.03	.06	.02

*Note.* <sup>†</sup>Significant at .01 level; \*Significant at .05 level. *N* = 145 – 147. Overall Improve = the overall PPD symptom severity reduction variable. CAPP total and domain change score ratings are in the first row: Total = CAPP Total change score, Attach = CAPP Attachment domain change score; Behav = CAPP Behavioural domain change scores; Cog = CAPP Cognitive domain change scores; Dom = CAPP Dominance domain change scores, Emo = CAPP Emotional domain change scores; Self = CAPP Self

domain change scores. Exhaust = APDQ Exhaustion domain. PPD Treatable = survey item '*I feel psychopathic patients are treatable*'. Pt. Treatable = pre-treatment, the respondent thought the patient was treatable; Willing to Tx = pre-treatment, the respondent was willing to treat the patient; Optimistic Tx = pre-treatment, the respondent was optimistic about improvement in their patient's symptoms; Confident Tx = pre-treatment, the respondent was confident in his/her ability to treat the patient.

Table P4

*Pearson's r Correlations: Overall Change Variable, CABP Change Ratings with Attitude Ratings in the BPD Group*

	Overall Improve	CABP Change Scores						
		Total	Attach	Behav	Cog	Dom	Emo	Self
APDQ Total	-.25 <sup>†</sup>	-.20*	-.07	-.21*	-.13	-.03	-.23 <sup>†</sup>	-.27 <sup>†</sup>
Loathing	-.26 <sup>†</sup>	-.20*	-.09	-.23 <sup>†</sup>	-.13	-.03	-.20*	-.27 <sup>†</sup>
Vulnerable	-.12	-.14	-.04	-.07	-.09	-.06	-.23 <sup>†</sup>	-.17
Rejection	-.01	.07	.07	.01	.10	.08	.02	.01
Futility	-.26 <sup>†</sup>	-.20*	-.10	-.21*	-.20*	-.08	-.19*	-.20*
Exhaust	-.14	-.06	.04	-.12	-.05	.07	-.08	-.14
BPD Treatable	.17	.14	.09	.19*	.09	.06	.06	.15
Pt. Treatable	.18*	.13	.12	.13	.13	.02	.06	.10
Willing to Tx	< -.01	-.03	-.08	.03	-.08	-.12	.03	.03
Optimistic Tx	.13	.12	.11	.14	.11	.01	.05	.15
Confident Tx	-.02	.02	-.01	.09	.01	.01	-.05	.04

*Note.* <sup>†</sup>Significant at .01 level; \*Significant at .05 level. *N* = 129 – 131. APDQ = Attitudes to Personality Disorders Questionnaire. Overall Improve = the overall BPD symptom severity reduction variable. CABP total and domain change score ratings are in the first row: Total = CABP Total change score, Attach = CABP Attachment domain change score; Behav = CABP Behavioural domain change scores; Cog = CABP Cognitive domain change scores; Dom = CABP Dominance domain change scores, Emo = CABP

Emotional domain change scores; Self = CABP Self domain change scores. Exhaust = APDQ Exhaustion domain. BPD Treatable = survey item '*I feel borderline patients are treatable*'. Pt. Treatable = pre-treatment, the respondent thought the patient was treatable; Willing to Tx = pre-treatment, the respondent was willing to treat the patient; Optimistic Tx = pre-treatment, the respondent was optimistic about improvement in their patient's symptoms; Confident Tx = pre-treatment, the respondent was confident in his/her ability to treat the patient.

Table P5

*Pearson's r Correlations: Overall Change Variable, CAPP Change Ratings with Therapist Characteristics in the PPD Group*

	Overall Improve	CAPP Change Scores						
		Total	Attach	Behav	Cog	Dom	Emo	Self
Gender	-.08	-.09	-.07	-.10	-.02	-.05	-.07	-.11
Age	.15	.14	.07	.12	.13	.13	.02	.20*
Level Training	-.09	-.07	-.09	-.11	-.02	-.02	-.07	-.05
Length Pract	.13	.20*	.08	.18*	.22 <sup>†</sup>	.19*	.11	.22 <sup>†</sup>
Num Patients	-.03	.17*	.08	.16	.21*	.15	.04	.20*
Num PPD Pts	.05	.08	-.01	.11	.16	.07	-.05	.11
Forensic Set	.19*	< .01	-.08	.01	-.02	.07	-.08	.05
Inpatient Set	.14	-.08	-.08	-.08	-.07	-.04	-.05	-.07
Special Train	.06	.15	.13	.11	.16	.20*	.03	.12

*Note.* <sup>†</sup>Significant at .01 level; \*Significant at .05 level.  $N = 145 - 147$ . Overall Improve = the variable assessing overall symptom reduction. The following variables were dichotomized for analyses: Level of training = doctoral level vs other; Length pract = practicing therapy for  $\geq 10$  years vs.  $< 10$  years; Num of Patients = treated  $\geq 100$  total therapy patients vs. treated less than  $< 100$  patients; Num PPD Pts = respondent has treated  $> 50$  PPD patients vs. treated  $\leq 50$  PPD patients; Forensic Set. = respondent primarily works in a Forensic, rather than Civil setting; Inpatient Set. = respondent

primarily works in an Inpatient, rather than Outpatient setting; Special Train = did the respondent receive specialty training on PPD (yes or no).

Table P6

*Pearson's r Correlations: Overall Change Variable, CABP Change Ratings with Therapist Characteristics in the BPD Group*

	Overall Improve	CABP Change Scores						
		Total	Attach	Behav	Cog	Dom	Emo	Self
Gender	-.15	< .01	-.04	-.06	< -.01	.04	< -.01	.07
Age	-.03	.24 <sup>†</sup>	.30 <sup>†</sup>	.14	.23*	.21*	.15	.20*
Level Training	-.05	.08	.10	.02	.09	.16	.03	.01
Length Pract	.04	.24 <sup>†</sup>	.28 <sup>†</sup>	.17*	.22*	.21*	.16	.19*
Num Patients	< .01	.29 <sup>†</sup>	.22*	.27 <sup>†</sup>	.31 <sup>†</sup>	.14	.24 <sup>†</sup>	.23 <sup>†</sup>
Num BPD Pts	.11	.23 <sup>†</sup>	.16	.26 <sup>†</sup>	.22*	.10	.16	.19*
Forensic Set	.05	-.15	-.11	-.15	-.10	-.05	-.18*	-.13
Inpatient Set	-.09	-.05	-.13	< .01	-.07	.01	-.03	-.06
Special Train	.16	.24 <sup>†</sup>	.21*	.21*	.15	.05	.23 <sup>†</sup>	.23 <sup>†</sup>

*Note.* <sup>†</sup>Significant at .01 level; \*Significant at .05 level. *N* = 123 – 132. Overall Improve = the variable assessing overall symptom reduction. The following variables were dichotomized for analyses: Level of training = doctoral level vs other; Length pract = practicing therapy for ≥ 10 years vs. < 10 years; Num of Patients = treated ≥ 100 total therapy patients vs. treated less than < 100 patients; Num BPD Pts = respondent has treated > 50 BPD patients vs. treated ≤ 50 BPD patients; Forensic Set. = respondent primarily works in a Forensic, rather than Civil setting; Inpatient Set. = respondent

primarily works in an Inpatient, rather than Outpatient setting; Special Train = did the respondent receive specialty training on PPD.

Table P7

*Pearson's r Correlations: Overall Change Variable, CAPP Change Ratings with Patient Characteristics in the PPD Group*

	Overall Improve	CAPP Change Scores						
		Total	Attach	Behav	Cog	Dom	Emo	Self
Age	-.06	-.15	-.17*	-.21*	-.07	-.13	-.05	-.13
Gender	-.06	-.08	-.10	.01	-.04	-.12	-.10	-.07
Taking Meds	.06	.03	-.06	.12	.03	.07	-.01	-.01
Serious MI	-.02	-.08	-.11	-.04	-.04	-.13	-.04	-.05
Social Support	-.18*	-.18*	-.17*	-.23 <sup>†</sup>	-.19*	-.10	-.08	-.14

*Note.* <sup>†</sup>Significant at .01 level; \*Significant at .05 level.  $N = 143 - 147$ . Overall Improve = the variable assessing overall symptom reduction. Serious MI = the patient had a comorbid diagnosis of serious mental illness (bipolar disorder, a psychotic disorder or major depressive disorder). CAPP total and domain change score ratings are in the first row: Total = CAPP Total change score, Attach = CAPP Attachment domain change score; Behave = CAPP Behavioural domain change scores; Cog = CAPP Cognitive domain change scores; Dom = CAPP Dominance domain change scores, Emo = CAPP Emotional domain change scores; Self = CAPP Self domain change scores.

Table P8

*Pearson's r Correlations: Overall Change Variable, CABP Change Ratings with Patient Characteristics in the BPD Group*

	Overall Improve	CABP Change Scores						
		Total	Attach	Behav	Cog	Dom	Emo	Self
Age	-.03	-.09	-.07	-.11	-.03	-.07	-.04	-.11
Gender	.03	.04	.11	.05	.07	.05	-.03	.02
Taking Meds	-.01	.08	.06	.14	.09	.01	.02	.01
Serious MI	-.16	-.30 <sup>†</sup>	-.21 <sup>*</sup>	-.26 <sup>†</sup>	-.29 <sup>†</sup>	-.12	-.26 <sup>†</sup>	-.32 <sup>†</sup>
Social Support	.04	.06	.09	.06	.07	-.02	.06	-.02

*Note.* <sup>†</sup>Significant at .01 level; \*Significant at .05 level.  $N = 128 - 132$ . Overall Improve = the variable assessing overall symptom reduction. Serious MI = the patient had a comorbid diagnosis of serious mental illness (bipolar disorder, a psychotic disorder or major depressive disorder). CABP total and domain change score ratings are in the first row: Total = CABP Total change score, Attach = CABP Attachment domain change score; Behave = CABP Behavioural domain change scores; Cog = CABP Cognitive domain change scores; Dom = CABP Dominance domain change scores, Emo = CABP Emotional domain change scores; Self = CABP Self domain change scores.

Table P9

*Pearson's r Correlations: Overall Change Variable, CAPP Change Ratings with Patient Challenges to Therapy in the PPD Group*

	Overall Improve	CAPP Change Scores						
		Total	Attach	Behav	Cog	Dom	Emo	Self
Non-attendance	-.28 <sup>†</sup>	-.17*	-.19*	-.14	-.05	-.12	-.17*	-.21**
Incomp HW	-.04	-.04	-.02	.02	.01	-.03	-.05	-.12
No Discuss	-.13	-.04	< .01	-.06	.03	-.03	< .01	-.11
Anger/Agg	-.03	.04	-.01	.04	.08	.07	.01	.02
Manipulate	-.16*	-.26 <sup>†</sup>	-.23 <sup>†</sup>	-.18*	-.23 <sup>†</sup>	-.17*	-.21 <sup>†</sup>	-.30 <sup>†</sup>
Suicidal	.11	.27 <sup>†</sup>	.13	.25 <sup>†</sup>	.32 <sup>†</sup>	.27 <sup>†</sup>	.18*	.22 <sup>†</sup>
Lack Motivat	-.19*	-.26 <sup>†</sup>	-.23 <sup>†</sup>	-.11	-.16	-.21*	-.31 <sup>†</sup>	-.34 <sup>†</sup>
Self-Destruct	.15	.24 <sup>†</sup>	.17*	.23 <sup>†</sup>	.25 <sup>†</sup>	.23 <sup>†</sup>	.15	.18*
Ambivalent	-.05	-.09	-.07	-.08	-.04	-.04	-.09	-.11
Lack Insight	.02	.02	-.02	.06	.10	.02	-.12	.02
No Tx Allian	.04	.06	.07	.05	.07	.07	-.01	.07

*Note.* <sup>†</sup>Significant at .01 level; \*Significant at .05 level.  $N = 144 - 147$ . Overall Improve = the variable assessing overall symptom reduction. Non-attendance = patient did not attend sessions regularly; Incomp HW = patient did not complete homework; No Discuss = patient did not engage in session discussions, Anger/Agg = patient became angry or aggressive in session; Manipulate = patient was manipulative during session,

Suicidal = patient had suicidal behaviours; Lack Motivat = patient lacked motivation;  
Self-Destruct = patient engaged in self-destructive behaviours; Ambivalent = patient was  
ambivalent about treatment; Lack Insight = patient lacked insight into their mental health;  
No Tx Allian = the respondent felt a therapeutic alliance was not developed.

Table P10

*Pearson's r Correlations: Overall Change Variable, CABP Change Ratings with Patient Challenges to Therapy in the BPD Group*

	Overall Improve	CABP Change Scores						
		Total	Attach	Behav	Cog	Dom	Emo	Self
Non-attendance	-.15	-.03	-.03	.03	.02	.02	-.05	-.03
Incomp HW	-.06	-.06	-.18*	.04	-.03	.02	-.06	-.07
No Discuss	-.06	.25 <sup>†</sup>	.17	.24 <sup>†</sup>	.24 <sup>†</sup>	.27 <sup>†</sup>	.15	.11
Anger/Agg	-.04	.12	.11	.17	.14	.13	.10	.01
Manipulate	-.20*	-.04	.12	-.01	< -.01	.13	-.18*	-.15
Suicidal	-.15	.18*	.20*	.22*	.05	.27 <sup>†</sup>	.04	.13
Lack Motivat	-.05	-.14	-.05	-.10	-.14	.06	-.16	-.22*
Self-Destruct	-.17	.20*	.14	.24 <sup>†</sup>	.10	.23*	.15	.15
Ambivalent	-.05	-.15	-.19*	-.13	-.09	-.03	-.09	-.17
Lack Insight	-.07	-.17	-.16	-.15	-.08	-.09	-.16	-.14
No Tx Allian	.06	.08	.09	.11	.05	.23 <sup>†</sup>	< -.01	-.04

*Note.* <sup>†</sup>Significant at .01 level; \*Significant at .05 level. *N* = 126 – 132. Overall Improve = the variable assessing overall symptom reduction. Non-attendance = patient did not attend sessions regularly; Incomp HW = patient did not complete homework; No Discuss = patient did not engage in session discussions, Anger/Agg = patient became angry or aggressive in session; Manipulate = patient was manipulative during session, Suicidal = patient had suicidal behaviours; Lack Motivat = patient lacked motivation;

Self-Destruct = patient engaged in self-destructive behaviours; Ambivalent = patient was ambivalent about treatment; Lack Insight = patient lacked insight into their mental health; No Tx Allian = the respondent felt a therapeutic alliance was not developed.

Table P11

*Pearson's r Correlations: Overall Change Variable, CAPP Change Ratings with Treatment Characteristics in the PPD Group*

	Overall Improve	CAPP Change Scores						
		Total	Attach	Behav	Cog	Dom	Emo	Self
Tx Length	.19*	.35 <sup>†</sup>	.29 <sup>†</sup>	.24 <sup>†</sup>	.32 <sup>†</sup>	.36 <sup>†</sup>	.22 <sup>†</sup>	.34 <sup>†</sup>
Session Freq.	.09	.05	.02	.03	-.01	.10	.08	.04
Forensic Set.	.20*	.06	.03	.05	.01	.09	.02	.07
Inpatient Set.	.16*	.04	.03	.04	> -.01	.06	.04	.04
Anger	.22 <sup>†</sup>	.13	.07	.11	.20*	.15	.08	.05
Sex Offender	-.06	.01	.06	<.01	.01	-.04	.01	.04
Violence	.18*	.17*	.16	.10	.21*	.18*	.05	.18*
Social Skills	.18*	.07	.09	.09	.02	.06	.01	.05
Drug Abuse	.06	.09	.13	.07	.14	.11	.06	-.03
Prob. Solve	.09	.06	.07	.08	.09	.01	.04	.05
Depress/Anx	-.01	.08	.05	.09	.09	.01	.13	.05

*Note.* <sup>†</sup>Significant at .01 level; \*Significant at .05 level.  $N = 146 - 147$ . Overall Improve = the variable assessing overall symptom reduction. Tx Length = length of treatment with their PPD patient (dichotomized < 1 year versus  $\geq$  1 year); Session Freq. = the frequency of sessions with their patient (dichotomized < 4 sessions per month versus  $\geq$  4 sessions per month); Forensic Set. = the patient was treated in a forensic setting (vs. civil setting); Inpatient Set. = the patient was treated in an inpatient setting (vs. outpatient

setting). The remaining variables in the first column are types of therapeutic interventions provided to the patient: Anger = anger management therapy; Sex Offender = sex offender management treatment; Violence = violence prevention / management skills; Social Skills = social skills training; Drug Abuse = substance abuse treatment; Prob. Solve = problem solving skills; Depress/Anx = therapy targeting depression or anxiety symptoms specifically.

Table P12

*Pearson's r Correlations: Overall Change Variable, CABP Change Ratings with Treatment Characteristics in the BPD Group*

	Overall Improve	CABP Change Scores						
		Total	Attach	Behav	Cog	Dom	Emo	Self
Tx Length	.08	.33 <sup>†</sup>	.28 <sup>†</sup>	.17	.36 <sup>†</sup>	.28 <sup>†</sup>	.24 <sup>†</sup>	.26 <sup>†</sup>
Session Freq.	.14	.04	-.01	.05	.04	.03	.06	.02
Forensic Set.	-.05	< .01	.02	.03	-.02	.09	-.06	-.06
Inpatient Set.	-.17	.11	.08	.21*	.01	.27 <sup>†</sup>	-.01	.02
Anger	-.03	.06	.08	.02	.11	.07	.02	.01
Sex Offender	.03	-.02	-.04	< .01	-.03	.06	-.06	.02
Violence	-.11	.11	.06	< .01	.18*	.16	.05	.07
Social Skills	.07	.08	.05	.06	.15	.10	.02	.05
Drug Abuse	.05	< .01	.08	-.06	.13	.04	-.08	-.04
Prob. Solve	-.10	-.09	-.03	-.13	-.02	-.04	-.10	-.13
Depress/Anx	-.08	-.11	-.05	-.11	-.04	-.10	-.10	-.16

*Note.* <sup>†</sup>Significant at .01 level; \*Significant at .05 level. *N* = 127 – 132. Overall Improve = the variable assessing overall symptom reduction. Tx Length = length of treatment with their BPD patient (dichotomized < 1 year versus ≥ 1 year); Session Freq. = the frequency of sessions with their patient (dichotomized < 4 sessions per month versus ≥ 4 sessions per month); Forensic Set. = the patient was treated in a forensic setting (vs. civil setting); Inpatient Set. = the patient was treated in an inpatient setting (vs. outpatient

setting). The remaining variables in the first column are types of therapeutic interventions provided to the patient: Anger = anger management therapy; Sex Offender = sex offender management treatment; Violence = violence prevention / management skills; Social Skills = social skills training; Drug Abuse = substance abuse treatment; Prob. Solve = problem solving skills; Depress/Anx = therapy targeting depression or anxiety symptoms specifically.