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Chapter One
Introduction

According to criminal codes from many international jurisdictions, an offender can be considered less or not punishable if he or she commits a crime as the result of a mental disorder that influenced that individual's free will, so that it rendered him or her unable to act differently. In some cases, courts can decide on a mitigated sentence or compulsory treatment for the offender. Article 39 of the Dutch criminal code states: "not punishable is he who commits a criminal act for which he cannot be held responsible because of a defect or disorder of his mental capacities". Under Dutch criminal law, if an offender's mental disorder meant that he or she did not have the opportunity to act differently and the crime was unavoidable, the fact cannot be attributed to him or her and courts should refrain from punishment. Instead of punishment, courts can order can order enforced treatment, if there is a danger to society of the same crime being committed as a result of the mental disorder's influence on the individual's freedom to act (Mooij, 20014). In the Netherlands, the presence of a personality disorder at the time of the crime can warrant diminished criminal responsibility and/or enforced treatment in a high security hospital (Barendregt, Muller, Nijman, & De Beurs, 2008; De Kogel & Nagtegaal, 2006; Nijman, De Kruyk, & Van Nieuwenhuizen, 2004). The Dutch system of enforced treatment of (personality-)disordered offenders has been under close public and political scrutiny over the last decade, following a number of serious incidents. The number of disordered offenders in treatment hospitals greatly increased in recent years (from 405 individuals in 1990 to over 2100 in 2010). Also, the system has undergone many policy changes, but these changes have been so frequent and followed one another so quickly that many policies were reversed before they could be evaluated (Nagtegaal, Van der Horst, & Schönberger, 2011). According to Nijman and colleagues (2004), offenders with a personality disorder outnumber those with psychotic disorders in treatment hospitals. Therefore, it is essential to be able to make thorough and accurate diagnoses of (the severity of) personality pathology – consisting of both personality disorders and personality characteristics – in psychological and psychiatric assessments within the field of the interface, or common ground, of criminal law and psychology.

Standardization of psychodiagnostic assessment in the Pieter Baan Center

The Pieter Baan Center (PBC) is the Dutch Ministry of Justice's psychiatric observation hospital that carries out around 220 pre-trial in-patient assessments of suspects of serious crimes per year. All defendants are evaluated during a seven-week period by a multidisciplinary team consisting of a psychiatrist, a psychologist, a forensic social worker, a ward staff member, and a legal expert who supervises the assessment process along with a second senior psychiatrist or psychologist. The forensic social worker investigates the life history and social background of the defendant through interviews with informants such as family members, former teachers, or former employers. The ward staff member has the task of observing and describing the activities and behavior of the defendant during his or her stay on one of the observation hospital's wards. The final product of an assessment in the PBC is a report by the forensic mental health experts concerning each defendant's psychiatric disorders, if any, and degree of criminal responsibility. The final report also contains a recommendation to the court as to whether enforced treatment of the defendant is considered necessary if the defendant is convicted of the charge. The PBC's recommendation is followed by the court in around 86% of all cases (Boonekamp, Barendregt, Spaans, De Beurs, & Rinne, 2008).

Psychodiagnostic assessment is a very important information source during an evaluation in the PBC. Until the end of 2007, the decision as to which assessment instruments to use was determined per case by the examining psychologist and psychiatrist. Their aim was to find an optimal balance between the expertise of each expert, the case-specific details, and the available assessment instruments. A major drawback of such an expert and practice-based approach, however, was that it had the potential to compromise the reproducibility – and especially the comparability – of assessment results. Moreover, this method was relatively vulnerable to thinking and decision-making errors such as confirmation bias (De Ruiter, 2007; Barendregt, Rijnders, & De Ranitz, 2008).

Due to this criticism, the PBC's psychological assessment procedure and test instruments were critically examined and revised in 2007. The revision had many aims, including to achieve greater uniformity and standardization of the psychiatric and psychological assessment process, to promote evidence-based assessment by increasing the use of scientifically sound and reliable instruments, and to establish a new diagnosis protocol based on objective and standardized measurement methods and assessment instruments for a complex population within the field of criminal law otherwise known as a forensic population (Spaans, Barendregt, Muller, Van der Meer, & Rinne, 2014).

A positive and intended result of standardizing the assessment process in the PBC was the gradual creation of a database of defendants' scores on a number of assessment instruments. The new battery of assessment instruments was intended to be dynamic, meaning it could be adjusted at any time. This database made it possible to study the utility of the instruments selected for the assessment protocol, as many of the instruments used or even available in the Netherlands at the time were not specifically designed for forensic population and utility in the PBC's populations was unknown.

The current study investigates the prevalence, assessment and prognostic value for treatment of personality pathology – which within the context of the present study refers to both personality disorders and maladaptive personality traits – in a forensic mental health setting, largely using the database of results on assessment instruments acquired after the revision of the assessment process in the PBC.

Personality pathology in a forensic mental health setting

Personality pathology is highly prevalent in prison populations. According to a systematic review carried out by Fazel and Danesh in 2002, 65% of the male general prison population and 42% of the female general prison population in western countries has a personality disorder, based on interview methods of assessing these disorders. The authors also found that prisoners are ten times more likely to have antisocial personality disorder than the general population, with a prevalence of 47% in men and of 21% in women. De Ruiter and Greeven (2000), Hildebrand and De Ruiter (2004), and Timmerman and Emmelkamp (2001) found that 80%, 88.3%, and 87% of their forensic samples, respectively, had at least one personality disorder diagnosis. In all three samples the most frequently diagnosed personality disorders originated from the American Psychiatric Association's (APA) Diagnostic Statistical Manual's (DSM) Cluster B: antisocial, borderline, histrionic and narcissistic personality disorders.

Cluster B personality disorders, along with Cluster A, are considered to be more severe than Cluster C (Crawford, Koldobsky, Mulder, & Tyrer, 2011). DSM-IV-TR Cluster B antisocial personality disorder and narcissistic personality disorder are characterized by maladaptive personality traits such as high levels

of aggression or hostility, poor impulse control, sensation seeking, and lack of empathy (American Psychiatric Association, 2000; Hare, 2006; Looper & Paris, 2000). These personality traits are associated with impairments or abnormalities that lead to maladaptive outcomes and are also especially prevalent in forensic populations (Boccaccini, Murrie, Hawes, Simpler, & Johnson, 2010; Cunradi, Todd, Duke, & Ames, 2009; Dolan & Blackburn, 2006; Norlander & Eckhardt, 2005; Shechory, Weiss, & Weinstain, 2011; Walters, 2007).

Assessment of personality pathology in a forensic mental health setting

Given that previous research has shown high prevalence in forensic populations of personality disorder and personality traits that lead to negative outcomes, the assessment of personality pathology (i.e., both personality *disorders* and *traits*) is a very important part of the legal process. Not only is knowledge about an individual's personality pathology of great importance for the judge and his or her decisions regarding punishment and possible treatment – especially in those jurisdictions in which the presence of a personality disorder warrants diminished criminal responsibility – but it also plays a large role in the treatment process of those offenders.

The APA's guidelines for forensic psychology state that forensic mental health practitioners should "provide opinions and testimony that are sufficiently based upon adequate scientific foundation, and reliable and valid principles and methods that have been applied appropriately to the facts of the case" (American Psychiatric Association, 2013b; p.9). The assessment of personality pathology in the forensic mental health field is, however, more complex than in regular psychological practice. Firstly, most defendants have not requested any assessment themselves and there is generally very little trust between the psychologist and the (suspected) offender (Cima, 2003). Secondly, suspected offenders and forensic psychiatric patients can gain or lose quite a lot from the results of their assessment, such as the length of their prison sentence or whether they are ordered to undergo any kind of enforced treatment. Issues such as malingering (i.e., exaggerating negative qualities) or dissimilation and positive impression management (i.e., giving socially desirable answers) can certainly play a role in the way an individual presents him or herself (Cima, 2003; Wygant & Lareau, 2015) due to possible legal benefits. The presence of a (Cluster B) personality disorder or psychopathic personality characteristics also makes respondents more likely to yield biased assessments (Cima, 2003).

Self-report instruments in forensic mental health assessment

Personality pathology can be assessed through a wide variety of assessment methods, including but not limited to self-report measures, observer-rated scales, and semi-structured interviews. Psychological assessment methods offer the forensic mental health practitioner thorough, qualitative and standardized results (Wygant & Lareau, 2015). Of the three above-mentioned methods, self-report assessments are the least complicated or time-consuming for forensic mental health professionals as they are quick and easy to administer and require most effort from the assessed, not the assessor.

Various studies have reported a relationship between personality traits pertaining to Cluster B personality disorders and deviant or disruptive behaviors using self-report assessment instruments (Boccaccini et al., 2010; Cunradi et al., 2009; Edens, Buffington-Vollum, Colwell, Johnson, & Johnson, 2002; Dolan & Blackburn, 2006; Hare, 2006; Neumann & Hare, 2008; Norlander & Eckhardt, 2005; Shechory et al., 2011; Taft et al., 2006; Walters, 2007). Miller and Lynam (2001) carried out a meta-analysis on the relationship between antisocial behaviors and basic dimensions of personality and found that the dimensions agreeableness and conscientiousness, from Costa and McCrae's Five-Factor Model (FFM; Costa & McCrae, 1990), showed the strongest association with antisocial behaviors. Further studies showed that individuals who commit crime or are psychopaths are generally low in agreeableness, exhibiting negative interpersonal and psychopathic characteristics such as deceitfulness, manipulativeness, and a grandiose sense of self-worth, low in conscientiousness, meaning they lack responsibility and are unreliable (Miller & Lynam, 2001; Miller & Lynam, 2003; Miller, Lynam, Widiger, & Leukefeld 2001) and also display high levels of facets of neuroticism, pertaining to angry hostility and impulsiveness (Miller & Lynam, 2015; Widiger & Costa, 2012). The validity of self-report methods in forensic populations, however, has been questioned (Milton et al., 2005). Given the possible consequences for the forensic population of the outcome of their psychological evaluation, and the great diversity of self-report instruments available for personality traits – the majority of which were not designed specifically for forensic populations (Wygant & Lareau, 2015) – there appears to be little clarity or overview of the current level of knowledge on these maladaptive personality traits in forensic populations. Chapter Two discusses an investigation into the prevalence of negative, inflexible, and notable personality traits – as maladaptive or severe variants of the common dimensions of personality encompassed by the FFM – as assessed with self-report instruments, that lead to deviant or disruptive behavior and are most prevalent in forensic populations worldwide.

Efficient assessment in forensic mental health evaluations

For various reasons it is important that the forensic mental health assessment process is efficient and cost-effective (Wygant & Lareau, 2015). In the field of general psychological practice, Widiger and Samuel (2005) recommend a two-step approach for an efficient assessment of personality psychopathology. This entails first administering a self-report questionnaire to screen for the potential presence of personality disorders, followed by a standardized (semi-)structured diagnostic interview to verify the presence of the disorder. This assessment process could pose many benefits for the forensic mental health field. If the screening questionnaire were quick and efficient, the amount of time required to confirm the presence or absence of a diagnosis would be shorter. However, the most important quality of self-report instruments in the assessment of psychopathology is that they are accurate and that the forensic evaluation report used to inform all relevant legal parties about the offender are clear, objective, and transparent (Wygant & Lareau, 2015).

Chapter Three discusses the suitability of the Dimensional Assessment of Personality Pathology – Short Form (DAPP-SF; Van Kampen, De Beurs, & Andrea, 2008) for this two-stage screening process in a psychiatric observation hospital where pre-trial psychological and psychiatric assessments are carried out on suspects of serious crimes. The DAPP-SF is a self-report instrument for the assessment of personality which has shown reliability and validity in the general population as well as in patients seeking treatment for personality disorders (Van Kampen et al., 2008) and in patients with mood, anxiety, and somatoform disorders (De Beurs, Rinne, Van Kampen, Verheul, & Andrea, 2009). The DAPP-SF proved to be able to

distinguish patients with personality disorders from the general population (De Beurs, Rinne, Van Kampen, Verheul, & Andrea, 2010). As this instrument is an accurate screening tool in the general population, it might also be so for forensic populations.
Continuing on the topic of self-report personality assessment instruments, the Minnesota Multiphasic Personality Inventory-2 (MMPI-2; Hathaway & McKinley, 1989; Nieberding et al., 2003) is one of the most widely used and researched self-report personality assessment instruments in correctional and forensic psychiatric settings. In a survey on the use of forensic assessment instruments, the majority of forensic psychological experts recommended the use of the MMPI-2 for evaluating an individual's mental state at the time of the offense (Lally, 2003), even though it has not been validated for forensic populations.
One popular line of research using the MMPI(-2) in the forensic arena has been the attempt to classify criminal offenders into distinct groups according to their profiles. Such classification may provide useful information about motives and for treatment and management for each specific subtype of offenders. Previous studies have found between two (Espelage et al., 2003; Hall, Graham, & Shepherd, 1991) and ten (Megargee, Carbonell, Bohn, & Sliger, 2001) different clusters. Studies indicating only two separate clusters raise doubt about the suitability of the MMPI-2 as the primary instrument for differentiating personality types in a forensic population.
Chapter Four discusses the replication of the above-mentioned previous studies aimed at deriving an empirical classification system using cluster analysis of MMPI-2 profiles of pretrial criminal defendants in a forensic psychiatric observation hospital, which could benefit legal decisions on level of criminal responsibility as well as treatment decisions.

Personality disorder and criminal law

Once personality pathology has been established in pre-trial psychological assessments, judges have to decide on the level of criminal responsibility and corresponding level of punishment and/or treatment if the chance of recidivism is high. International jurisdictions differ on what disorders are deemed sufficient to warrant diminished criminal responsibility, criminal insanity and/or treatment of their mental health. In some jurisdictions, such as the U.S. and Canada, the presence of a personality disorder generally does not often lead to a verdict of insanity or diminished criminal responsibility (Rice & Harris, 1990; Warren, Murrie, Chauhan, Dietz & Morris, 2004). This could be partly due to the high prevalence of antisocial personality disorder in detained populations (Fazel & Danesh, 2002). A crucial diagnostic criterion for antisocial personality disorder is criminal versatility and repeated unlawful behaviors (American Psychiatric Association, 2000), making it almost by definition very prevalent in detained populations (Van der Wolf, 2012). It should be noted that under Dutch criminal law the crime the defendant has been accused of can never be used to form a diagnosis. In other words, the pre-trial diagnosis must also hold in the case of an acquittal. A history of criminal behavior in itself is not considered sufficient to warrant diminished criminal responsibility.
According to Sparr (2009), some argue that personality disorders are ever-present and rarely involve the cognitive defects required for an insanity plea or diminished criminal responsibility. Following this claim, one could argue that personality disorders do not greatly affect a person's freedom of will. Other authors have argued, however, that personality disorders and psychopathy *can* be interpreted as serious mental disorders, because they are based on developmental disabilities or deficits such as

cognitive deficiencies and biological impediments (Ciocchetti, 2003; Fine & Kennett, 2004; Herpertz & Sass, 2000; Mei-Tal, 2002; Palermo, 2007).
Given the complex role that personality disorder plays and the international variability regarding whether it should or shouldn't be a factor in determining the level of criminal responsibility by forensic mental health experts, Chapter Five discusses the Dutch forensic context. It presents two empirical investigations into whether personality disorders as well as psychopathic personality traits in criminal suspects are reasons for diminished criminal responsibility or enforced treatment in high security hospitals in the Netherlands. In a sample of suspects of serious crimes undergoing pre-trial assessment in a Dutch forensic psychiatric observation hospital, the first study examined the extent to which forensic mental health experts consider personality disorders in their recommendations on criminal responsibility and the need for enforced treatment. The second study investigated associations between scores on the Psychopathy Checklist-Revised (PCL-R; Hare, 2003) and expert recommendations on criminal responsibility and the need for enforced treatment in a similar sample at the same observation hospital.

Personality disorder and enforced treatment

In the Netherlands, once the court has established that a mental disorder influenced an individual's free will and led to a crime, that individual's criminal responsibility can be considered diminished and the individual can be sentenced to enforced treatment in a high security hospital. As mentioned earlier, in Dutch forensic practice the presence of a personality disorder may lead to an offender being deemed diminished responsible and eligible for enforced treatment. The aim of enforced treatment is to protect society against individuals with a high risk of recidivism stemming from their disorder (De Kogel & Nagtegaal, 2006; Van Gemmert, Van Schijndel, Gordeau, & Casanova, 2013) and to facilitate the individual's gradual, safe, and justified return into society (Koenraadt, Mooij, & Van Mulbregt, 2007; Van der Wolf, 2012). As long as the forensic psychiatric patient's recidivism risk has not decreased sufficiently to warrant return to society, the treatment continues. This creates the possibility of lifelong detention in a high security setting. The median enforced treatment length for forensic psychiatric patients had gradually been increasing over the years, from 7.3 years for patients who entered the system in 1990 (Dienst Justitiële Inrichtingen, 2011) to its peak at 10.6 years for patients who entered the system in 1998 (Dienst Justitiële Inrichtingen, 2015). A recent study shows that the median enforced treatment length for patients who entered the system in 2006 has decreased somewhat to 8.0 years (Dienst Justitiële Inrichtingen, 2015).
Accompanied and unaccompanied leave are crucial steps in the treatment process. These periods of authorized freedom to move outside the secure zone of the forensic psychiatric hospital gradually prepare a patient for his or her return to society, by examining if treatment advances made in the hospital hold up in the less protective outside environment and if the patient can handle an increase in freedom and responsibility (Nagtegaal et al., 2011; Bernstein, Nijman, Karos, Keulen-De Vos, De Vogel, & Lucker, 2012). After a number of serious incidents with forensic patients in the past, forensic psychiatric hospitals have become hesitant in granting leave, and are prolonging first applications for leave of their patients (Mevis, 2011). At the same time, there is increasing pressure from the government to speed up the leave process, and with that, shorten the total treatment length. Forensic hospitals are therefore constantly facing deliberations and complex decisions (Nijman,

De Kruyk, & Van Nieuwenhuizen, 2002) concerning suitability of leave, conditional release and the potentially harmful consequences of a new offense (Cima, 2003). Expanding on knowledge about personality disorder as a prognostic factor for treatment can contribute to more effective forensic treatment.
According to De Kogel and Nagtegaal (2006), one of the important predictive factors for the success of forensic treatment of a disorder concerns the characteristics of the person being treated. Research on the relationship between personality pathology and treatment length for forensic patients, however, is limited. As far as the authors are aware, longitudinal or prospective research on treatment length for patients with personality disorder in enforced forensic treatment has never been carried out. Chapter Six discusses an investigation into the predictive value of personality disorder on treatment length, at first leave request and end of treatment, of offenders detained in high security forensic treatment hospitals in the Netherlands. This study combined data from pre-trial assessment – from a population with 76.5% personality disorder prevalence – with data containing treatment characteristics from forensic hospitals. It aimed to elaborate on current knowledge regarding the influence of personality disorder on treatment length of forensic patients in the Netherlands. To examine possible confounding, the effect of index offense, Axis 1 disorder, substance abuse history and intellectual functioning were also investigated.

Research questions

In summary, the present dissertation investigates the following five issues concerning the prevalence, assessment and treatment of personality pathology – i.e., both personality disorders and maladaptive personality traits – in forensic practice:

1) Given the possible consequences for the forensic population of the outcome of their psychological evaluation, and the fact that the majority of self-report instruments available for personality traits were not designed specifically for forensic populations, there is a need for clarity on the prevalence of these maladaptive personality traits in forensic populations. What are the self-reported levels of antisocial and psychopathic personality traits as well as traits associated with agreeableness, conscientiousness and neuroticism in forensic populations, i.e. anger, aggression, hostility, and impulsivity in forensic populations, compared to normal populations? (Chapter Two)

2) When applying a two-step approach for an efficient assessment of personality psychopathology in a forensic mental health setting, can the DAPP-SF be used as a screening tool for personality disorder and can it correctly determine who should and should not undergo a standardized semi-structured diagnostic interview to verify the presence of the disorder, using data from a forensic psychiatric hospital where pre-trial evaluations are carried out on suspects of serious crimes? (Chapter Three)

3) When assessing personality traits in a known heterogeneous population of pretrial criminal defendants of serious crimes in a forensic psychiatric observation hospital, can a cluster analysis of MMPI-2 profiles produce a number of distinct personality profiles? (Chapter Four)

4) Once a personality disorder has been established in pre-trial psychiatric forensic evaluations, how do Dutch mental health experts consider this diagnosis in their recommendations regarding criminal responsibility compared to other psychiatric conditions, and how do they advise on the necessity of enforced treatment in a high security hospital? Furthermore, how do they consider various aspects of psychopathy as measured by the Psychopathy Checklist-Revised (PCL-R) into these judgments? (Chapter Five)

5) For those offenders who have been committed to enforced treatment in a high security hospital, what is the predictive value of a personality disorder for treatment duration at first leave request and end of treatment? Are there any confounding effects of index offense, Axis 1 disorder, substance abuse history and intellectual functioning? (Chapter Six)

Research method

The current dissertation investigates the prevalence, assessment and prognostic value for length of treatment of personality pathology, or both personality disorders and maladaptive personality traits, in a forensic mental health setting. While Chapter Two presents meta-analytic data based on literature review, the research presented in Chapters Three, Four, and Five was all carried out using the database of results on assessment instruments acquired after the revision of the assessment process in the PBC. The research presented in Chapter Six is one of the first of its kind to merge data from digital databases from different sources available in the Dutch judicial system and over a range of treatment hospitals.