Title: What is the pattern of self-harm and prison-rule-breaking-behaviour in personality disordered men in a high secure prison?

Abstract

Purpose – The purpose of this paper is to describe the pattern of self-harm (SH) and proven prison-rule-breaking (PRB) behaviour in prisoners receiving treatment for personality disorders (PDs) within a high secure prison.

Design/methodology/approach – A comparative quantitative case study design supported the understanding of the frequency and pattern of SH and PRB behavior across two stages of a personality disorder (PD) treatment programme for 74 male prisoners. Data obtained from the prison's records was analysed using dependent t tests, chi square test of independence and time-frequency analyses.

Findings – Inferential statistics showed that the frequency of SH and PRB behaviour statistically increased across two phases of the PD treatment programme, however the method of SH or type of PRB behaviour engaged in did not change. Mapping the frequencies of incidents using a time-frequency analysis shows the patterns of both behaviours to be erratic, peaking in the latter phase of treatment, yet the frequency of incidents tended to decline over time.

Originality/value – This is the first study to explore SH and PRB behaviours in men across two phases of a PD treatment programme. This study highlights the need for continued psychological support alongside the PD treatment programme with a focus on supporting men in treatment to effectively manage their SH and PRB behaviour.

Introduction

The UK male prison population continues to include an overrepresentation of offenders with a personality disorder (PD) (Coid *et al.,* 2006). In 1998, figures reported 64% of male sentenced prisoners met criteria for at least one PD sub-type (Singleton *et al.,* 1998) and four years later this figure increased to 65% (Fazel and Danesh, 2002). With such a high proportion of offenders meeting criteria for a PD classification, the need for HM prison service to effectively manage and successfully treat offenders with PD is greater than ever. Yet, evidence suggests treating offenders who display both personality difficulties and criminogenic needs is challenging due to low treatment readiness, low responsivity and high treatment dropout rates (Chalker *et al.,* 2015; Howells, Krishnan and Daffern, 2007; Ma *et al.,* 2009; Minoudis, Shaw and Craissati, 2012).

Such complexities are exacerbated by offenders with complex personality difficulties who engage in behaviour that may pose serious harm to self (i.e. self-harm and/or suicide) and/or others (Department of Health and National Offender Management Service Personality Disorder Team, 2011; Joseph and Benefield, 2010; Maden, Chamberlain and Gunn, 2000). This creates further challenges for the Criminal Justice Service (CJS) to achieve their fundamental aim of reducing risk to self and/or others (Freestone *et al.,* 2015).

In this paper we identify and compare patterns of two behaviours literature shows are the most prevalent in PD offenders, self-harm (SH) (Craissati *et al.,* 2011; MacIntosh, Godbout and Dubash, 2015) and prison rule breaking (PRB) behaviour (e.g. verbal or physical abuse, disobeying lawful order, threatening behaviour; Berman *et al.,* 1998; Gilbert and Daffern, 2011; Ullrich *et al.,* 2007). We examine these behaviours across two phases of one high secure prison's PD treatment programme and provide statistical evidence to inform more appropriate, timely and behaviour-focussed support in an attempt to reduce men with personality difficulties engagement in SH or PRB behaviour.

Offenders and Personality Disorders

The prison service classify behaviours and emotions associated with PD through the DSM-V (American Psychiatric Association, 2013) which presents a range of PD characteristics within 10 sub-types and three clusters (see Table 1).

Cluster A	**Cluster B**	**Cluster C**
Paranoid Distrusting and suspicious of others motives, interpreting them as malevolent	**Antisocial** Disregard for and violation of the rights of others	**Avoidant** Social inhibition, feelings of inadequacy, hypersensitivity to negative evaluation
Schizoid Detachment from social relationships and difficulty expressing emotions	**Borderline** Insecure relationships, self-image, affects and impulsivity	**Dependant** Excessive need to be taken care of, submissive behaviour and fears of separation
Schizotypal Social and interpersonal discomfort, cognitive distortions and eccentric behaviour	**Histrionic** Excessive emotionality and attention seeking behaviour	**Obsessive-compulsive** Preoccupation with orderliness, perfectionism and control
	Narcissistic Grandiosity, need for admiration, lack of empathy	

Table 1 DSM V Personality Disorder Clusters and Subtypes

Research by Coid (2003) and Johnson and others (2009) discuss how individual factors and early life circumstances can influence the dysfunction of personality and result in offending behaviour in adult life. The most common behaviours and characteristics found in the UK prison population are associated with borderline personality disorder (BPD; Blackburn and Coid, 1999; Hodgins and Cote, 1993; Logan and Blackburn, 2009; Warren *et al.,* 2002) and Anti-social Personality Disorder (ASPD; Hodgins and Cote, 1993; Roberts and Coid, 2009).

Current literature explains the prevalence of BPD and ASPD in male and female offending populations is a result of offenders' exposure to childhood traumatic (CT) experiences that remain untreated (Ardino, 2011; Craissati *et al.,* 2011; Foy, Furrow & McManus, 2011). The complexities of the emotional dysregulation associated with CT and its impact on personality tend to only be addressed once the offender reaches the CJS (McLeod, Neale and Johnson, 2015; Watts and McNulty, 2013).

Females who experience CT such as childhood sexual abuse, often display personality traits akin with BPD and are considered significantly more likely to SH than males who experience difficulties with personality (Craissati *et al.,* 2011; MacIntosh, Godbout and Dubash, 2015). We know that people experiencing personality difficulties akin to BPDs frequently engage in self-harming behaviour to express difficult emotion (Ennis *et al.,* 1989; Gratz, 2001; Gratz *et al.,* 2014; Gupta and Trzepacz, 1997; Hall *et al.,* 2001; Linehan, 1993; Nehls, 1999; Suominen *et al.,* 1996; Zanarini, 2009) and we also know that the methods of SH used by individuals presenting BPD traits tends to be more severe and can threaten life (Soloff *et al.,* 2014).

The prevalence of suicide ideation within a population associated with BPD are high, and figures illustrate people with borderline personality difficulties are 50 times more likely to attempt suicide than those without (Pompili *et al.,* 2008). In a population with traits of BPD, acts or threats of SH feature to such a high degree that SH features in the assessment and diagnostic criteria of PDs (American Psychiatric Association, 2000; World Health Organisation, 1992). In addition, offenders associated with BPD may find social and occupational environments challenging which can limit their daily functionality (Gunderson, 2001) which may increase their engagement in risky self-behaviour, endangering their health and wellbeing (Skodol *et al.,* 2002; van Asselt *et al.,* 2007). Literature highlights people with personality difficulties display a high prevalence of violent and aggressive behaviour (Berman *et al.,* 1998; Gilbert and Daffern, 2011; Ullrich *et al.,* 2007). An offender who has experienced

CT, such as parental neglect or rejection, will often display personality traits associated with ASPD and may present with aggressive behaviour or have a history of violence (Amstrong and Kelly, 2008; Berenz *et al.*, 2013). Research by Johnson *et al*. (2000) suggests individuals whose personality complexities fall under cluster A (Paranoid, Schizoid, and Schizotypal) and B (borderline, histrionic and narcissistic; see table 1), are three times more likely to commit a violent act as a method to express the emotion they are experiencing, than a person who is not associated with a PD sub-type.

The Offender Personality Disorder Pathway (OPD) and the Westgate Unit's PD Treatment Programme

Current prison treatment for individuals considered to have PD follows the Offender Personality Disorder (OPD) Pathway, a national policy developed jointly by Department of Health and National Offender Management Service (2011) to manage high risk offenders. Since 2004, the OPD has provided a PD treatment service (PDTS) in four secure units including a male high secure prison site. The Westgate unit at HMP Frankland, Durham, aims to achieve positive change in its men within an enabling prison environment (Joseph and Benefield, 2012). The Westgate Unit's PD treatment programme is delivered through three sequential phases (i) living (ii) assessment and treatment needs analysis (ATNA) and (iii) treatment (Bennett, 2014) (see figure 1).

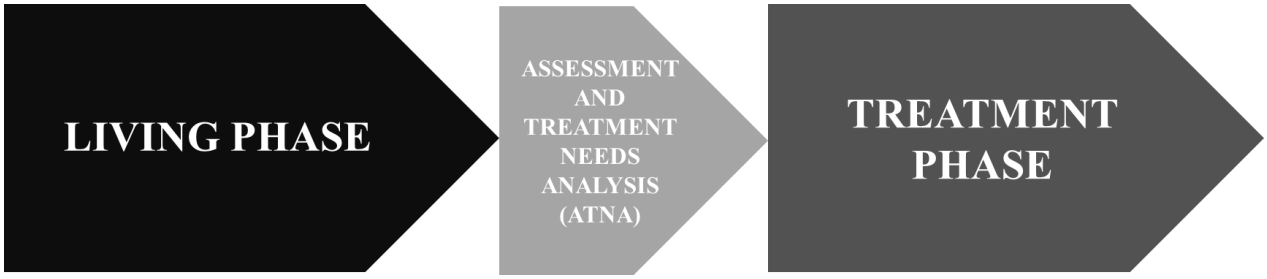

Figure 1 The Westgate Service PD Treatment Programme

The *living* phase begins as soon as the offenders arrive on the Westgate unit and allows the men a period of adjustment to settle in to a new enabling environment (Bennett, 2014.) As the *living* phase continues, it affords men an opportunity to develop skills for 'living' in a structured regime of purposeful activity and to build upon working relationships with staff. Treatment models for offenders with PD have focused on the importance of therapeutic communities that enforce an alternative living environment to turbulent prison life (Shuker, 2010). An enabling environment aims to reduce these aspects of prison life and encourages communal living, responsibility and positive social interactions with prisoners and staff, however this type of environment can be difficult for offenders with personality difficulties where social interactions can be problematic (Kennard, 2004). During the *living* phase, the treatment programme staff record any problematic behaviours (such as SH and PRB) exhibited by the men on the Westgate unit in the prison's database, p-NOMIS,

The ATNA phase follows the *living* phase and assesses offenders' suitability for treatment in accordance with the criteria published by the DSPD Programme (2008). Quoted from Bennett (2014, p. 10), the Westgate unit's PD treatment programme accept men if they have:

- A significant/high risk of re-offending;
- The presence of a "severe" personality disorder (evidenced by: a Psychopathy Checklist Revised (PCL-R score) (Hare 2003) score of 30 (95.8th percentile) and above; a PCL-R score of between 25 and 29 (85.2th – 94.4th percentile) combined with at least one PD other than antisocial PD; or two or more PDs (regardless of the PCL-R score) and
- The presence of a "functional link" between the disorder and the risk of re-offending.

If men do not meet the suitability criteria, they return to the usual prison wing. If men meet the criteria, the *treatment* phase begins. This phase applied a treatment framework that consits of 11 treatments; five treatment components form part of the Chromis programme for reducing the risk of violence in offenders considered psychopathic (Motivation and Engagaemnt, Creative Thinking, Problem Solving, Handling Conflict and Schema Therapy; Tew and Atkinson, 2013) and the remaining six components target PD and offending behaviour (Psychoeducation, Iceberg, Emotion Modulation, Social Competence, Relationship and Intimacy Skills, and Progression and Maintenance programme; Bennett, 2014)

To provide additional treatment support to the men, cognitive behavioural therapy (CBT), desensitisation and reprocessing (EMDR), and dialectical behaviour therapy (DBT) for men with BPD, are provided alongside the treatment framework (Bennett, 2014). Implementing parallel treatments aims to support any emotional distress and manage distorted thinking or treatment interfering behaviour.

Evidence suggests these therapies are tailored to challenge service user's personal identity, thoughts and actions, and are reported by service users to be intrusive (Bateman, Gunderson and Mulder, 2015). Although the intensity of CBT and DBT is shown to be successful in encouraging an individual to accept themselves and their behaviour, it can trigger traumatic thoughts and emotions which can be difficult for the offender to manage and express (Rizvi *et al.*, 2013). Implementing CBT and DBT within a high secure environment, and not the community environment it was intended for (Linehan, 1993), has proved challenging for the Westgate unit. The restrictive nature of prison, maintain professional boundaries between staff and prisoner, and insincere behaviour by some men, have limited the access to these support services and may impact on the level of distress experienced by men with PD when they are experiencing crisis (Bennett, 2014).

The Westgate Unit Population (2004-2015)

From safer custody and administration records (2004-2014) we accessed demographic information on a total of 286 men who had been located on the Westgate Unit since 2004. Demographics included date of birth, ethnicity, status category, and any given diagnoses of psychopathy and/or PDs. The ages of men in the PD treatment unit ranged from 24-74 years of age, with a mean of 43.85 years. A high proportion of men in the treatment service were White British (86.7%) with much smaller numbers of Black (3%), Asian (1%) or mixed-heritage men (9.3%).

The prison's dataset illustrated that the majority of men were serving discretionary life sentences (32.75%), mandatory life sentences (28.57%), followed by Imprisonment for Public Protection (IPP) (20.91%) and finally determinate sentences (17.7%). All men were considered to have the presence of at least one PD subtype, 38.11% of men more than one PD subtype, and 1.75% of men five PD subtypes. These figures illustrate the extent of comorbidity within this prison population and range of treatment needs required for successful intervention.

The two most prominent personality types in the total population sampled were ASPD (54.89%) and BPD (31.2%). The average PCL-R score for men in the PD treatment unit was 28.06, ranging from 13 to 39. Research from the UK (Cooke and Michie, 1999) suggest a PCL-R score of 25 or more illustrates a significant presence of behaviour(s) associated with psychopathy, emphasising the differing types of intervention required in the treatment programme for this unique prison population.

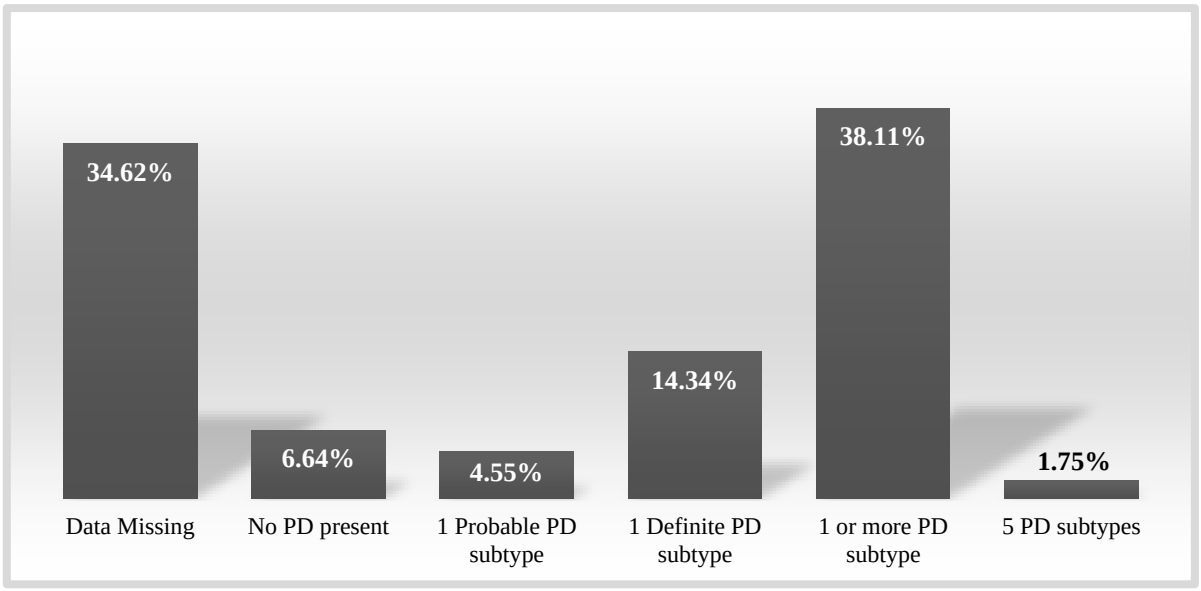

Figure 2 Proportion of PDs and PD subtypes in Total Number of Men Located on the Westgate Unit (2004-2015) (N=286)

Twenty-six of the 286 men had completed the *treatment* phase and 'graduated' from the Westgate unit's PD treatment programme. Sixty-four men referred to the Westgate unit had participated in the '*living*' phase, but on assessment at ATNA did not meet criteria for transition to the *treatment* phase and relocated to the customary prison environment. From 2004-2015, 85 men either voluntarily withdrew or were forcibly withdrawn from the PD treatment programme. We identified sixteen reasons for why men left the unit and illustrate these within figure 3.

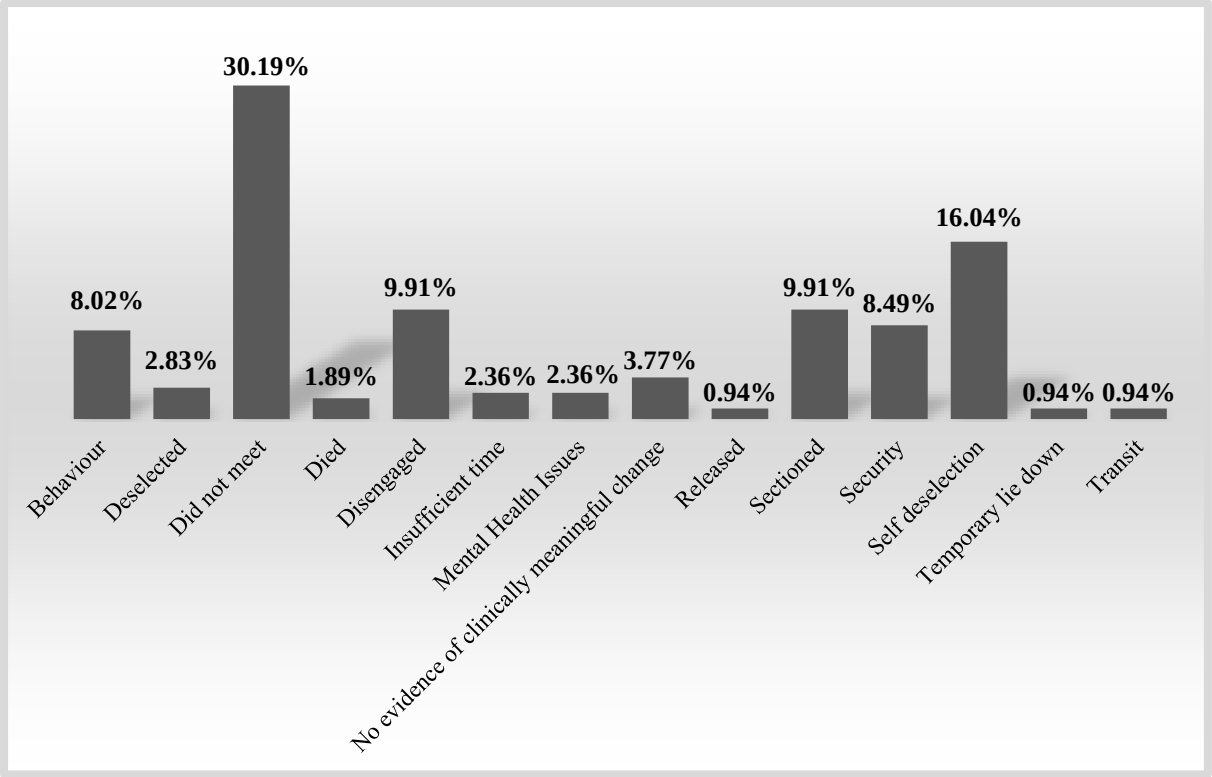

Figure 3 Reasons for Leaving the Westgate unit PD Treatment Programme

Rationale and Hypothesis

Previous evaluations of the Westgate unit's PD treatment programme have used in-depth qualitative case study designs to follow up offenders who have completed the three treatment phases [n=4] (Bennett and Moss, 2013) and [n=5] (Tew *et al.*, 2012). These studies demonstrate tentative progress for offenders. Bennett and Moss (2013) found offenders who had completed treatment reported more insight into and verbalisation of their SH, while Tew *et al* (2012) found that offenders reported feeling less angry and committed fewer incidents of physical aggression post treatment. The obvious limitation of these studies are the very low numbers of offenders included in the sample who had completed treatment.

The current study offered an opportunity to extrapolate from the work of both Bennett and Moss (2013) and Tew *et al* (2012) and explore two behaviours prevalent in offenders with personality difficulties, SH and proven PRB behaviour. Research illustrates that a reduction in

the number of SH and PRB incidents has links to reduced reoffending (Brunton-Smith and Hopkins, 2013) and increased psychological health (Hawton *et al.,* 2013). Thus, this study complements the evaluation of the OPD pathway which is assessed on (i) risk of serious offending, (ii) psychological health improvement, and (iii) economic benefit (Joseph and Benefield, 2012).

Based on findings reported in previous research (Bennett and Moss, 2013; Tew *et al.,* 2012) we hypothesized there would be a reduction in the frequency and de-escalation in type, of proven PRB and SH incidents from the *living* to the *treatment phase* of the PD treatment programme. Emerging findings would allow us to develop a more enhanced understanding of men's journeys from the *living* to the *treatment* phase of the PD treatment programme and contribute towards future service development.

Methods

Research Design

The study employed a comparative quantitative case study design (Stake, 2005). A case study design allowed us to focus on one prison and its PD treatment unit to explore patterns of SH and proven PRB behaviour across the whole treatment programme. So that we could understand when incidents of SH and PRB behaviour were more likely to occur, we mapped each recorded incident on a time-frequency graph to illustrate the peaks and troughs of men's treatment journeys.

The comparative element of the case study design allowed us to compare findings from quantitative analyses of data across two phases of the prison's PD treatment programme and identify whether any differences in frequency were statistically significant.

Sample

We chose to include the data of SH and PRB behaviour of all men who had transitioned from the *Living* to the *Treatment* phase. This included men who had completed the treatment programme and men who were currently in treatment. We made this judgment so not to exclude a population of men who had not completed the treatment programme but who may have the most prevalent SH and/or PRB behaviour. From the 286 records of total Westgate population, the total number of men who had transitioned from the living to treatment phase was 74 (N=74). A proportion of 25.89% of men ever referred to the Westgate unit from 2004-2015.

The mean age of the sample was 44.78 years with a range of 32.14 years (min: 30.61 years, max: 62.75 years). The majority of the study's sample were White British (88.9%) with much smaller numbers of Black (4.2%), Asian (1.4%) or mixed-heritage men (5.5%) and mirrors the overall Westgate population. Differences in sample are shown within this samples variation of sentence type and is dominated by mandatory life sentences (41.89%) followed by discretionary life (29.73%), Imprisonment for Public Protection (IPP) (25.68%) and finally determinate sentences (2.70%).

In the study's sample, 83.8% of men were considered to have the presence of at least one PD subtype, 67.6% of men more than one PD subtype, and 2.7% of men five PD subtypes. From the dataset, 10.8% of PD information was missing and 5.4% were not considered to have a subtype of personality dysfunction, but had a PCL-R score of 30 or above and met criteria for admission to the treatment programme.

Mirroring the Westgate unit's overall population, the two most prominent personality types in this study's sample are ASPD (78.38%) and BPD (54.05%). In addition, nearly half (48.64%) of this sample were considered to have both sub-types of personality. The average PCL-R score

for men in this sample was 29.1 (ranging from 13 to 38) and is slightly higher the general population score (28.06).

Due to the nature of the definitive selection criteria for admission on to the PD treatment programme, the sample population for this study are a unique and highly selected sample which aims to treat the most severe cases of PD in offending men. Consequently, this will the limit the extent the conclusions of this study can be generalised, yet still offers an exclusive insight in to this under-researched prison population.

Data Collection

Prior to data collection, the local National Offender Management Service (NOMS) research committee and Nottingham Trent University (NTU) research ethics committee (REC) granted ethical approval for the study. The dataset for this research study consisted of pre-existing secondary quantitative data. This population of men have previously provided informed consent to the prison for their data to be used for research purposes. The data was rendered anonymous as the offenders' name or offence information was removed prior to a secure exchange of the data to the researchers from the prison estate.

The dataset captured data on each man referred to the PD treatment unit since its inception in 2004 and included demographic information such as date of birth, ethnicity, date sentenced, age at conviction for index offence, lifer status, and if applicable, date and reason for leaving the PD treatment unit. Ten subtypes of PD (Paranoid, Schizoid, Schizotypal, ASPD, Borderline, Histrionic, Narcissistic, Avoidant, Dependent and Obsessive Compulsive) were previously assessed for each individual man and recorded to have i) definite diagnosis, ii) probable diagnosis or iii) no diagnosis. The adjusted PCL-R score was also provided within the dataset.

The SH data was collated on a monthly basis from safer custody records, which through the Assessment, Care in Custody and Teamwork (ACCT; Her Majesty's Prison Service 2005) process formally recorded any incidents and types of SH for each offender. We were mindful that the busy nature of the prison environment and the subjective judgement of prison staff might result in some unreported incidents, therefore the use of secondary data may not present an accurate picture of the frequency of SH incidents and PRB behaviour. The data used for this study included SH incidents from January 2004 to December 2014. The proven PRB data sourced from administration records registered at the time of the PRB hearing are identical to those logged to the prison's operational database, P-NOMIS, which details prisoners' personal information, case note information, and disciplinary incidents. Information not provided within the secondary dataset included details on the men's current medication and any diagnosed co-morbidities. The omission of this information limits the extent to which this treatment programme can be evaluated.

Both datasets provided prison records detailing men's previous PRB and SH incidents on the Westgate unit. Using these datasets and the dates provided for each recorded incident of SH and/or PRBs, we were able to establish whether each incident occurred in the *living* or *treatment* phase. This then created a new database in the Statistical Package for the Social Science (SPSS) to allow for data analysis.

Coding System

Once we had to access to the data, we found variability in the way that each SH and PRB incident was recorded by prison staff. In order to be confident that we were comparing the same types of behaviour across the different phases of PD treatment, we developed a coding system for both types of incidents. Two of the research team independently coded and then

crosschecked the data. This ensured that both researchers had a similar interpretation of the recorded data and applied the same corresponding code.

Applying the description of incidents stated in the PSI-47-2011 Prisoner Discipline Procedures (Ministry of Justice, 2013) and adhered to by prisons in England and Wales, we were able to code each recorded proven PRB incident. These procedures allowed us to identify and code 29 different types of PRB behaviour.

Similarly, to ensure comparisons of SH across the two treatment phases could be made, we coded each incident using the International Classification of Diseases (ICD)-10 codes for intentional SH (World Health Organisation, 1993). Developed by the World Health Organisation, the 10th edition of the ICD provides diagnostic classification for health disorders and disease and is used for international research and clinical purposes *(ibid)*. We chose the ICD-10 for this study as it provides 24 clear codes and definitions for intentional SH which would allow us to categorise the incidents recorded in the dataset at a much more detailed level than if we had used the DSM-V, which proposes more implicit criteria for what constitutes 'non-suicidal-self-injury' (American Psychiatric Association, 2013).

To ensure consistency of comparisons, we re-coded all incidents of SH recorded in each offender's ACCT record by creating an adapted version of the ICD-10 Intentional SH codes (World Health Organisation 2014). The original version of the ICD-10 distinguishes between blunt or sharp object used for SH, however such detailed information was not recorded with the ACCT records and therefore we recoded any such incident to 'intentional SH by object'. The ICD-10 also distinguishes between types of 'intentional self-poisoning', which again provided a level of detail that we sometimes were not able to ascertain from the datasets provided. We therefore applied the code for 'Intentional Self-Poisoning' to include all forms of self-poisoning within the dataset.

SH behaviour recorded by staff such as 'cut self without object', 'scratched self, punched self', 'head banging', 'reopening or aggravating of wound' were all recoded under 'Intentional SH by other specified means'. A number of codes that the ICD-10 refer to such as 'Intentional SH by firearm' were considered very unlikely to occur within the prison environment, however were retained within the coding system and resulted in a total of 15 codes for SH.

Data Analysis

All types and frequencies of SH and PRB behaviour on 74 PD men (N=74) who had transition from the *living* to *treatment* phase of the Westgate unit's PD programme were analysed using SPSS version 22.

From dates provided in the dataset, we calculated whether each incident of SH or PRB behaviour occurred in the *living* or *treatment* phases and plotted this on a line graph to illustrate the pattern of these behaviours over time.

We used dependent *t* tests to compare frequencies of incidents across the two treatment phases. We used a cross–tabulation chi square analyses to compare categorical data relating to whether the types or chosen methods of proven PRB and SH behaviour had changed from the *living* to the *treatment* phase of the PD treatment programme.

Results

Descriptive Analyses

Analysis shows there were a total of 193 incidences of SH and 159 incidences of PRB recorded from the 74 offenders who had transitioned from the *living* to the *treatment* phase. The most frequent type of SH was intentional SH by object. Statistics show that this type of SH increased by 28.56% from the *living* to the *treatment* phase. Analyses identified the most frequent types of proven PRB behaviour in the *living* phase were 'disobeys any lawful order' and 'uses

threatening, abusive or insulting words or behaviour'. However, in the *treatment* phase the most frequent type of PRB recorded was 'uses threatening, abusive or insulting words or behaviour'. This type of PRB increased from the *living* to the *treatment* phase by 0.24% and suggests men's behaviour de-escalates from violent to verbal outburst as treatment progresses. The PRB type 'disobeys any lawful order' was found to decrease from the *living* to the *treatment* phase by 9.06% and suggests a trend towards de-escalations in PRB behaviour and an increase in men's compliance when in the *treatment* phase of the PD programme.

Dependent t Tests

All data recorded within the *treatment* phase was included in this analysis, resulting in valid data for 74 prisoners who had transitioned to the *treatment* phase. Data analysis revealed that the frequency of SH incidents significantly increased between the *living* (M1) and *treatment* (M2) phases for this population M1-M2 = 4.76 $t(73) = -2.783$, $p<.05$, 95% CI [-8.152, -1.367], as did proven PRBs M1-M2 = 1.31 $t(73) = -4.349$, $p<.05$, 95% CI [-1.908, -.713].

Chi-Square Test of Independence

A Chi-Square Test of Independence compared the types of SH and PRB behaviour men engaged in across the two phases of treatment programme. Analyses identified 193 incidences of SH across the *living* to *treatment phase* and showed no significant relationship between the treatment phases and types of SH behaviour engaged in by men X^2 (20, 193) = 14.173, p = .822. Similarly, 159 incidences of PRB behaviour were analysed and revealed no statistically significant relationship between PD treatment phases and types of PRB behaviour.

Time-Frequency Analysis

Mapping the frequencies of SH and PRB incidents on a time-frequency line graph provides a visual representation of the pattern of behaviour. Figure 2 illustrates the frequency of SH and PRB incidents in the *living* phase and in Figure 3 the *treatment* phase. As illustrated in both graphs, and as expected from the dependent t test analyses, there is a much higher frequency of SH than PRB behaviour. The *living* phase features a large peak in SH incidents between 5-9 months into treatment with PRBs also peaking within this period. Subsequent months show a steady decline in frequency; however, frequency of PRB behaviour begins to increase again between 15-19 and 20-24 months.

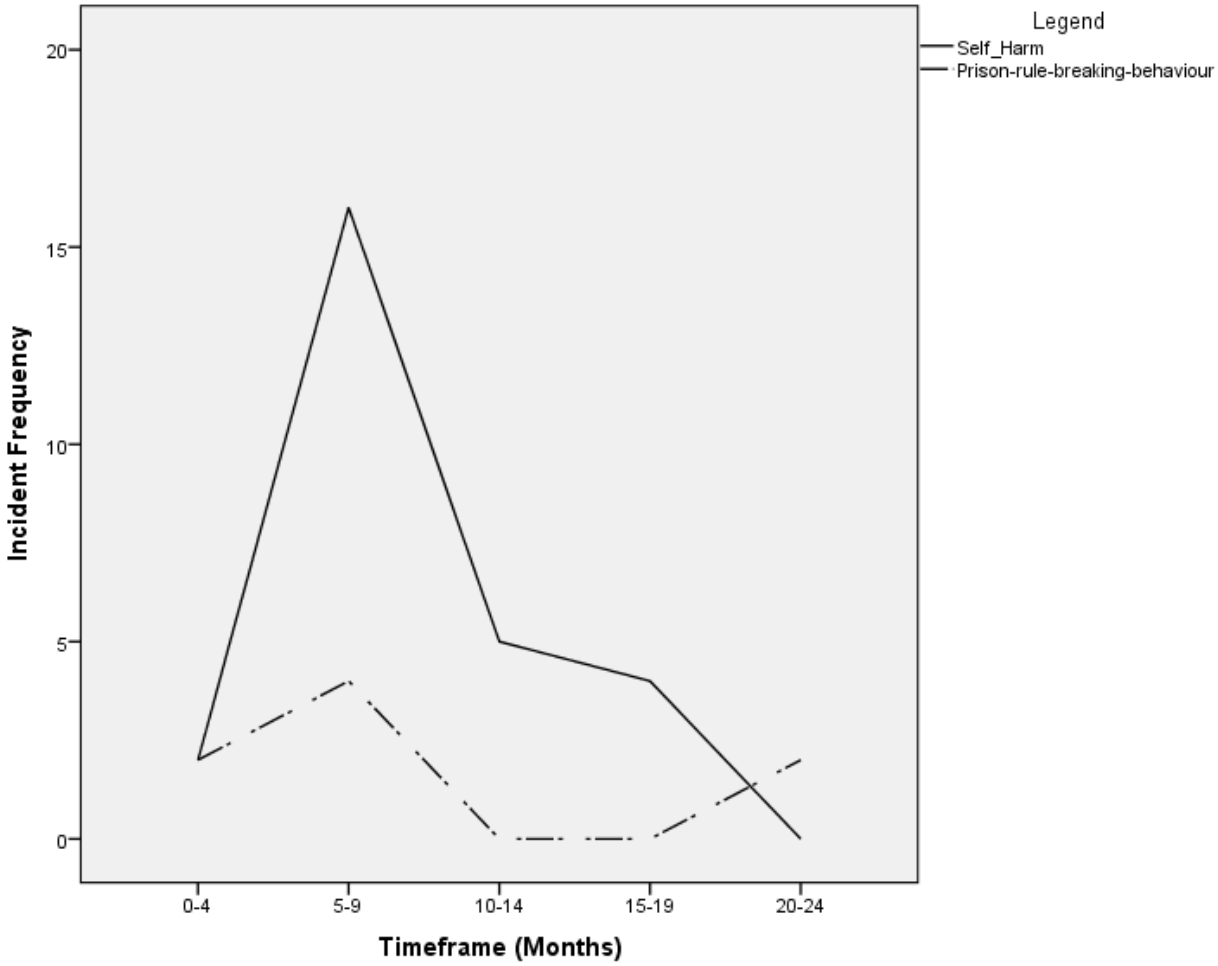

Figure 4 A line graph to show the pattern of behaviour of Self-Harm and Prison rule breaking Incdients in the living phase

Frequency of incidents within the *treatment* phase (Figure 3) illustrates erratic behaviour during this phase in forms of both SH and PRB behaviour. However, frequency of SH tends to show a more erratic and irregular pattern than PRB behaviour, particularly between 5-9, reaching a peak at 30-34 and 40-44 months. The pattern of PRB behaviour shows a short peak within 0-4 months of treatment and again at 50-54 months. However, the pattern of PRB behaviour does show a general decline in frequency.

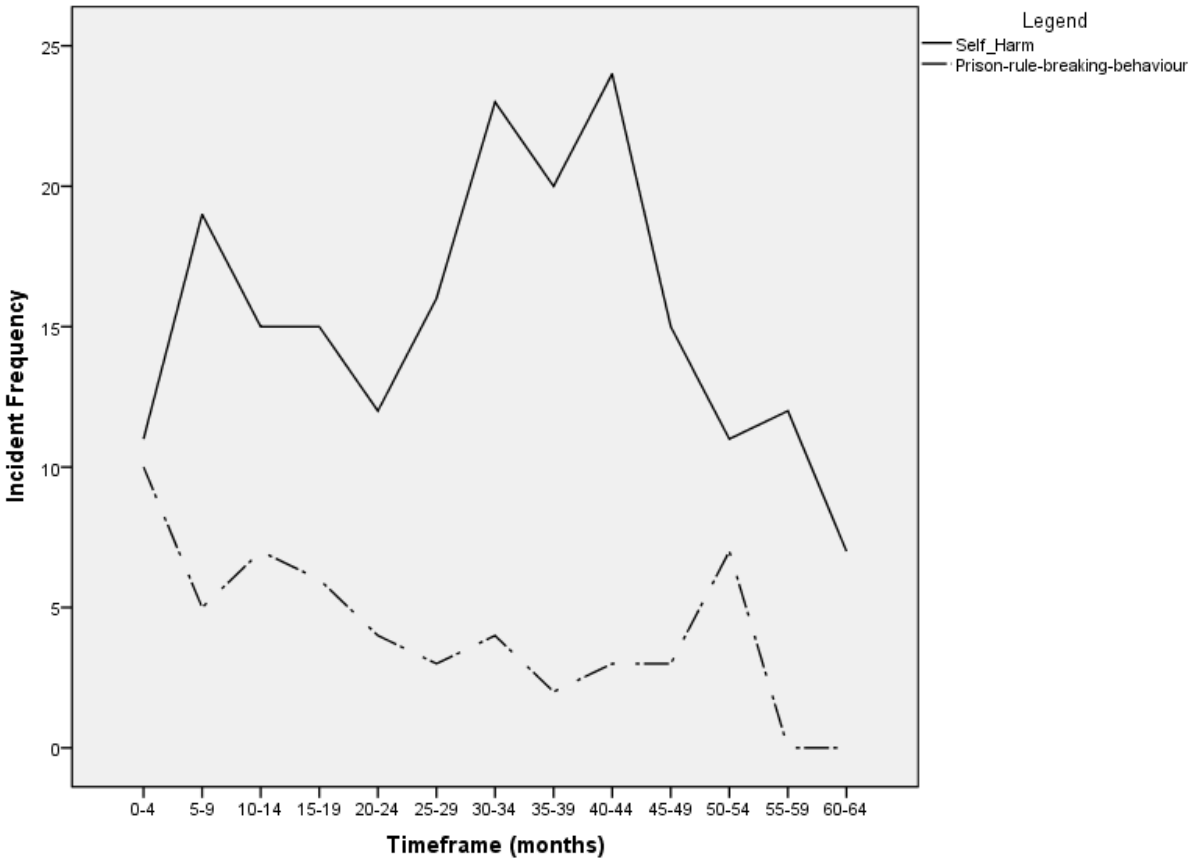

Figure 5 A line graph to show the pattern of behaviour of Self-Harm and Prison rule breaking Incdients in the Treatment phase

Discussion

This study aimed to describe and understand the pattern of SH and PRB behaviour in male offenders associated with PD across two phases of PD treatment programme in one high secure prison site. Contrary to our initial hypothesis, and findings from previous evaluations of offenders who had experienced the PD treatment programme at this prison (Tew *et al.*, 2012; Bennett and Moss 2013), our study found a statistically significant increase in frequency of SH and PRB behaviours engaged in by 74 men from the *living* to *treatment* phase of the PD treatment programme.

Findings illustrate the frequency of both behaviours within the *living phase* peak at 5-9 months. We know that prior research on treatment models for offenders with PD adopt an alternative living environment to the usual chaotic nature of prison life and this adjustment can be difficult for the individual to manage (Kennard, 2004; Shuker, 2010). For this sample of men with PD, expression of such difficulties may manifest through an increase in maladaptive behaviours such as SH and/or PRB.

Findings also show the frequency and erratic pattern of SH and PRB behaviour increases when formal interventions begin in the *treatment* phase. Methods of treatment for this population challenge offending behaviour and personality needs (Bateman, Gunderson and Mulder, 2015; Rizvi *et al.*, 2013) but does not directly address SH or PRB behaviour. Literature tells us individuals with personality difficulties may use SH and aggressive outbursts as methods to cope with emotional regulation (Bateman, Gunderson and Mulder, 2015). Thus, emotionaly challenging interventions that fail to address SH and compliance with the prison rules may explain the increase in frequency and erratic increasing pattern of SH frequency in the *treatment* phase and highlights the need for continued psychological support alongside the PD treatment programme with a focus on supporting men in treatment to effectively manage their SH and PRB behaviour. The complex traumas that literature suggests people with personality difficulties experience (Ardino, 2011) and the risk of triggering traumatic memories of life

events during treatment (Rizvi *et al.,* 2013) may require targeted support for SH and PRB behaviour during the PD treatment pathway.

The number of incidents and erratic pattern of SH and PRB behaviours found in this study points to the complex behaviours associated with individuals who exhibit traits of PDs. Prior literature highlights offenders with personality difficulties have poor engagement (Minoudis, Shaw and Craissati, 2012) and high treatment dropout rates (Chalker *et al.,* 2015). This study evidences that since 2004, 26 out of 286 (9%) men referred to the Westgate unit successfully completed the treatment programme, but 91% did not. This raises questions of the efficacy of the PDTS and additional research should be carried out to identify the extent this treatment programme is fit for purpose for this unique population.

To fully understand the long-term behavioural effects of PD treatment and its full impact on offenders associated with PD, an exploration into SH and PRB behaviours pre and post-PD treatment is required. Given the complex diagnoses of this prison population and the high volume of evidence that suggests people experiencing personality dysfunction engage in these two types of behaviour (Berman *et al.,* 1998; Craissati *et al.,* 2011; Gilbert and Daffern, 2011; MacIntosh, Godbout and Dubash, 2015; Ullrich *et al.,* 2007) it is probable that this sample of men were engaging in SH and PRB behaviour prior to entering the PD treatment programme at HMP Frankland. Therefore, we recommend additional research that examines the prison trajectory of male prisoners with PD to fully understand their SH and PRB behaviour in response to treatment in prison.

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