Latent profile analysis of psychopathic traits among homicide, general violent, property, and white-collar offenders☆

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ARTICLE INFO

ABSTRACT

Purpose: The aim of this study was to identify meaningful subtypes of psychopathic traits among prisoners. Another aim was to estimate the association between psychopathy class membership and type of offending (homicide, general violent, property, and white-collar offences).
Methods: A systematically selected representative sample of 1126 adult male prisoners completed a personality-based self-report measure of psychopathy, the Psychopathic Personality Traits Scale (PPTS).
Results: Latent profile analysis revealed five distinct classes of psychopathic traits: a "high psychopathy group" (7.1%)", a "moderate psychopathy group" (10.8%), a "high interpersonal manipulation group" (20.8%), a "moderate affective/cognitive responsiveness group" (16.8%), and a "low psychopathy group" (44.6%). Multinominal logistic regression showed that general violent offenders were most likely to belong in the high psychopathy group, whereas property and white-collar criminals were most likely to be the members of the high interpersonal manipulation group.
Conclusions: Findings suggest that most inmates, even those detained in maximum and medium security units, do not meet the diagnostic criteria for psychopathy. The significance of the present findings is discussed in relation to past and future research as well as clinical practice.

Psychopathy is a multi-faceted personality disorder which is commonly presented to consist of a set of interpersonal (e.g., deceitfulness, superficial charm, grandiosity), affective (e.g., lack of empathy, remorse, or guilt), lifestyle (e.g. impulsivity, irresponsibility), and behavioral (e.g., social deviance, criminality) traits (Hare & Neumann, 2008). This conceptualization of psychopathy is usually assessed using the Psychopathy Checklist (PCL; Hare, 1980), its updated form, the Psychopathy Checklist – Revised (PCL-R; Hare, 1991, 2003), or the self-report equivalent, the Self-Report Psychopathy Scale (SRP; Hare, 1985).[1]

Psychopathy is frequently studied in relation to criminal and anti-social activities and, due to its predictive utility for such behavior, has been posited as a crucial psychological construct within the criminal justice system (see DeLisi, 2016; Hart & Hare, 1997). Indeed, the personality disorder has been revealed to predict violent recidivism (see Dhingra & Boduszek, 2013 for a review; Hart, Kropp, & Hare, 1988;

McCuish, Corrado, Hart, & DeLisi, 2015; Serin, 1996; Serin & Amos, 1995; Serin, Peters, & Barbaree, 1990) as well as sexual reoffending (Furr, 1993; Olver & Wong, 2015; Quinsey, Rice & Harris, 1995; Rice, Harris, & Quinsey, 1990), and has been associated with higher rates of crime (Hicks, Vaidyanathan, & Patrick, 2010). While the PCL-R-based estimated prevalence of psychopathy in the general population is between 0.3 and 2%[2] (males: 1–2%, females: 0.3–0.7%; Patrick & Drislane, 2015), the occurrence of psychopathy in the federal offender population is suggested to oscillate between 15 and 25% (Lilienfeld & Arkowitz, 2007; Woodworth & Porter, 2002). Those rates, however, were noted to differ for various types of offenders. For example, between 10 and 15% of violent and sexual offenders (Ogloff, 2006) and approximately 35% of homicide offenders (Hodgins, Mednick, Brenann, Schulsiger, & Engberg, 1996) were found to have elevated psychopathy scores.

Nonetheless, although the PCL-R scores were most often suggested

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[1] The SRP-III, sometimes also referred to as SRP-IV, (Paulhus, Neumann, & Hare, 2016) is the most recent version of the scale.
[2] Nevertheless, it is worth to note here that Colins et al. (2016), using latent profile analysis to identify subgroups of psychopathic personality among a large community sample, demonstrated that as much as 12% of respondents belonged in a psychopathic personality group.

to be best captured by a four-factor model, reflecting interpersonal, affective, lifestyle, and antisocial characteristics (e.g., León-Mayer, Folino, Neumann, & Hare, 2015; Mokros et al., 2011; Neumann, Hare, & Johansson, 2013; Neumann, Hare, & Pardini, 2014), studies into the prevalence of psychopathy tend to utilize total scale scores. Similarly, cut-off points used to diagnose the condition rely on the sum of scores rather than ratings obtained on these separate dimensions. Such an approach to measurement and diagnosis assumes variations in trait intensity (quantitative differences) but not in the constellation of psychopathic traits (qualitative differences) across individuals, which remains inconsistent with the literature (Colins, Fanti, Salekin, & Andershed, 2016). To elaborate, Karpman (1941) introduced the distinction between primary and secondary psychopathy, which differ in etiology and expression of symptoms. While secondary psychopaths act impulsively and their demeanor is driven by such negative emotions as hatred or anger, the behavior of primary psychopaths is more instrumental, cool, and intentional (Karpman, 1948). Arieti (1963), on the other hand, argued for psychopathy subtypes which vary in interpersonal and aggressive behaviors.

Given that various subtypes of psychopathy may be differentially associated with criminal and non-criminal behavior, the ability to distinguish between them appears vital for risk assessment, prevention, and treatment (Brinkley, Newman, Widiger, & Lynam, 2004). In order to empirically test whether meaningful variants of psychopathy can be distinguished, some recent research has utilized model-based clustering and latent profile/class analysis. This resulted in recovering two (e.g., Claes et al., 2014; Drislane et al., 2014; Lee & Salekin, 2010; Skeem, Johansson, Andershed, Kerr, & Louden, 2007; Vaughn, Edens, Howard, & Smith, 2009), three (Dembo et al., 2007; Mokros et al., 2015), four (Dhingra, Boduszek, & Kola-Palmer, 2015), five (Coid, Freestone, & Ullrich, 2012; Colins et al., 2016), or six (Falkenbach, Stern, & Creevy, 2014) subgroups of psychopathy, across criminal and non-criminal populations. To elaborate, the above cited research which recognized two variants was largely congruent with Karpman's (1948) primary and secondary psychopathy theory. Colins et al. (2016), using data obtained from 2500 young Swedish adults (aged 20–24 years), identified a psychopathic personality group which, compared with four remaining types, demonstrated significantly higher levels of aggression, offending, internalizing problems, substance use, and maltreatment. Interestingly, females in the psychopathic personality group were more likely to report exposure to sexual abuse and emotional difficulties than their male counterparts. Further, in a study within a sample of adult male offenders, Mokros et al. (2015) proposed a solution with three latent classes. Although an eight-class solution was statistically superior (based on Bayesian information criterion; BIC), the researchers did not construe it as parsimonious. In another above-cited study which uncovered three latent classes of psychopathy among 203 incarcerated youths, the groups different quantitatively (low, moderate, and high psychopathy) but not qualitatively. High psychopathy class membership predicted increased criminal thinking scores (Dembo et al., 2007). Finally, some prior investigations were limited to samples of individuals whose psychopathy scores were particularly high (≥ 27, as indexed using the PCL-R[3]) (e.g., Mokros et al., 2015; Skeem et al., 2007). Relying on the PCL-R total scores, however, could have led to exclusion of participants scoring high on core interpersonal/affective but low on lifestyle/antisocial traits of psychopathy, resulting in skewed findings.

In keeping with the abovementioned limitation, it has been suggested that the current formulation of psychopathy is weighted too heavily towards indicators of behavioral expressions of the condition, such as deviancy and maladjustment, which could have led to an overestimation of psychopathy in prison samples (see Boduszek & Debowska, 2016 for a critical review; Edens, Skeem,

Cruise, & Cauffman, 2001; Patrick, 2007; Patrick, Hicks, Nichol, & Krueger, 2007; Rogers, 1995). While some researchers perceive criminal/antisocial tendencies as an important part of the personality disorder (e.g., Hare & Neumann, 2005; Neumann et al., 2014), others have argued that such behavior may ensue from psychopathic personality traits (e.g., Boduszek & Debowska, 2016; Boduszek, Dhingra, Hyland, & Debowska, 2015; Cooke & Michie, 2001; Skeem & Cooke, 2010a, 2010b).

Indeed, the behavior-based conception of psychopathy can be understood as tautological: "Why has this man done these terrible things? Because he is a psychopath. And how do you know that he is a psychopath? Because he has done these terrible things" (Ellard, 1988, p. 387). In response to this logical paradox, a novel personality-based conceptualization of psychopathy along with an associated measure, the Psychopathic Personality Traits Scale (PPTS; Boduszek, Debowska, Dhingra, & DeLisi, 2016), has been recently introduced. The PPTS consists of four dimensions: affective responsiveness, cognitive responsiveness, interpersonal manipulation, and egocentricity. Affective responsiveness measures respondents' empathy and emotional depth of reactions. Cognitive responsiveness assesses the ability to understand others' emotional states, mentally represent others' emotional processes, and engage with another person emotionally at a cognitive level. Interpersonal manipulation includes statements inquiring into superficial charm, grandiosity, and deceitfulness. The final factor, egocentricity, measures an individual's tendency to focus on own beliefs, attitudes, and interests. Importantly, the scale is uncontaminated with behavioral items and hence well-suited to be used among forensic and non-forensic populations.

1. The present study

It has been noted that psychopathy may be over-diagnosed in criminal populations due to (a) the widespread use of measures based upon behavioral conception of psychopathy (such as the PCL-R) and (b) the utilization of cut-off points derived from the sum of scores, which defies research suggesting that psychopathy is multi-dimensional in character (Boduszek & Debowska, 2016; Boduszek et al., 2015; Debowska, Boduszek, Kola & Hyland, 2014b; Kennealy, Skeem, Walters, & Camp, 2010). Although studies using person-centered advanced statistical techniques,[4] such as mixture modelling, have the strength to identify qualitatively different subtypes of psychopathy and reveal how psychopathic traits are expressed across a range of populations, their usefulness relies heavily upon methods applied and interpretation of results.

To address limitations identified in prior research, the primary aim of the current study was to recover meaningful subtypes of psychopathy in a systematically selected representative sample of adult male prisoners, utilizing a personality-based psychopathy scale (PPTS; Boduszek et al., 2016) to assess the condition and latent profile analysis (LPA) to analyze the data. Since earlier LPA research included behavioral traits in psychopathy assessment, we did not formulate any a priori hypotheses in regard to the number of psychopathy variants, but we expected that a group scoring high on all four dimensions of psychopathy (i.e., affective responsiveness, cognitive responsiveness, interpersonal manipulation, and egocentricity) would be identified. We also predicted that this would be the least numerous group in the current analysis. In an attempt to verify the prevalence of psychopathy in forensic populations without relying on cut-off points calculated for total scores, another goal was to establish what percentage of inmates would be classed in the high psychopathy group. Lastly, prior research suggests significant differences in the condition intensity across various

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[3] The threshold for diagnosing psychopathy suggested in the PCL-R manual is 30 (Hare, 2003).

[4] Person-oriented analyses, unlike variable-centered approaches, do not focus on associations between study variables; rather, they attempt to examine the ways in which numerous characteristics are configured within individuals (De Fruyt & De Clercq, 2014).