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Psychopathic traits and offending trajectories from early adolescence to adulthood

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ARTICLE INFO

ABSTRACT

Purpose: Measures of adolescent psychopathy have yet to be examined in offending trajectory studies. This may explain why identifying etiological differences between individuals following high-rate and moderate-rate offending trajectories has remained elusive. The current study used the *Psychopathy Checklist: Youth Version* (PCL:YV) to examine psychopathic traits and offending trajectories within a sample of incarcerated offenders.
Methods: Convictions were measured for Canadian male (n = 243) and female (n = 64) offenders at each year between ages 12 and 28. Semi-parametric group based modeling identified four unique trajectories: adolescence-limited (AL) (27.3% of sample), explosive-onset fast desister (EOFD) (30.6%), high-rate slow desister (HRSD) (14.6%), and high frequency chronic (HFC) (27.5%).
Findings: Both a three and a four factor model of psychopathy were tested, and both factor structures were positively and significantly associated with the HRSD and HFC trajectories. Regarding individual factors of psychopathy, the 'Antisocial' factor of the PCL:YV was the only individual dimension significantly associated with membership in high-rate compared to moderate-rate offending trajectories.
Conclusions: Psychopathic traits appear more commonly present amongst individuals who follow chronic versus moderate offending trajectories. Implications for early intervention and risk management of offenders are discussed.

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Introduction

Nagin and Land (1993) introduced semi-parametric group-based modeling (SPGM) as an analytic technique that could be used to examine whether offenders in chronic offending trajectories could be distinguished from offenders in moderate offending trajectories in terms of specific underlying risk factors. However, identifying these risk factors has remained elusive in criminal trajectory studies (see Piquero, 2008 for a review). This is despite a number of developmental life course studies arguing that etiological differences exist between these two groups (e.g., LeBlanc & Loeber, 1998; Moffitt, 1993; Patterson, DeBaryshe, & Ramsey, 1989; Thornberry, 2004). This issue has likely persisted because of three unaddressed conceptual challenges associated with trajectory research. First, insufficient base rates of chronic offenders have made detecting significant differences between chronic and moderate offending trajectories difficult (van Domburgh, Vermeiren, Blokland, & Doreleijers, 2009). Second, detecting such differences has remained challenging because many studies have not included important neuropsychological deficits that have been hypothesized to differentiate

chronic and moderate offenders (see van der Geest, Blokland, & Bijleveld, 2009). Third, many criminogenic factors measured in adolescence are only distally related to adult offending outcomes (Chung, Hill, Hawkins, Gilchrist, & Nagin, 2002) and thus risk factors that remain stable across the life course should be utilized in trajectory studies.

Retrospective longitudinal data from a Canadian sample of incarcerated offenders were used to examine male (n = 243) and female (n = 64) offending trajectories between the ages of 12 to 28. Although incarcerated samples do not allow for the types of generalizations that can be made using community samples, the use of such samples does ensure an adequate base rate of offenders in chronic offending trajectories. Symptoms of adolescent psychopathy, measured using the *Psychopathy Checklist: Youth* Version (PCL:YV), were introduced in the current study as relatively stable neuropsychological deficits that potentially differentiate individuals who follow chronic offending trajectories from individuals who follow moderate offending trajectories.

Trajectory research and the developmental life course perspective

Trajectories refer to the patterns and sequences of an outcome over age or time and can be used to explain the evolution of crime across the life course (Nagin, 2005; Nagin & Tremblay, 2005). The trajectory

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methodology is consistent with the developmental life course's (DLC) emphasis on person-oriented methodological approaches (Magnusson & Bergman, 1988). The person-oriented approach focuses on persons rather than variables to facilitate the simultaneous examination of within-individual and between-individual differences in offending over time (Lussier & Davies, 2011; Magnusson & Bergman, 1988; Moffitt, 1993). The DLC perspective aims to explain the evolution of crime and deviance at the individual level from childhood to adulthood by considering how life conditions and other risk factors can influence the onset, persistence, and desistance of offending (Farrington, 2005; Loeber & LeBlanc, 1990; Nagin & Paternoster, 2000). Trajectory research can help provide a framework for addressing core DLC questions related to offending onset, persistence, and desistence. Although some have critiqued the SPGM method on the basis of its ability to test taxonomic and other theories (e.g., Skardhamar, 2009, 2010), others have noted that this has never been the purpose of the SPGM approach (Brame, Paternoster, & Piquero, 2012). The meaningfulness of trajectory groups is not determined by the statistical method, but rather the connection between the groups identified and the theory examined. If the groups are as predicted by a theory, then that is support for the theory (Brame et al., 2012). Another critique of trajectory studies more generally has been related to the need for research to measure early neuropsychological deficits in offender samples and then track the development of the criminal trajectories of these offenders into adulthood (see Blokland, Nagin, & Nieuwbeerta, 2005; Fergusson, Horwood, & Nagin, 2000; van der Geest et al., 2009; van Domburgh et al., 2009).

In prior trajectory studies, use of the person-oriented approach to examine within-individual differences in offending over time has revealed that the number of unique offending trajectories representing incarcerated samples ranges from four to six. Of these trajectories, there is almost always at least one chronic trajectory and one adolescent-limited trajectory (Jennings & Reingle, 2012; Piquero, 2008). Although etiological differences between chronic and adolescent-limited offenders have long been hypothesized (e.g., LeBlanc & Frechette, 1989; Moffitt, 1993), studies that have compared chronic offending trajectories to adolescent-limited and other offending trajectories have had difficulty identifying developmental risk factors that distinguish these groups (e.g., Day et al., 2012; Fergusson et al., 2000; Landsheer & van Dijkum, 2005; Nagin, Farrington, & Moffitt, 2005; Odgers et al., 2008; Piquero, 2008).

Conceptual challenges in trajectory studies

In the current study, focus was given to addressing three conceptual challenges associated with examining whether offenders in chronic offending trajectories have characteristics that differ from individuals who follow low or moderate offending trajectories. These conceptual issues are related to (1) sample selection (2) inclusion of appropriate risk factors, and (3) the temporal relationship between risk factor and offense trajectory. First, regarding sample selection, van Domburgh et al. (2009) explained that comparisons between high-rate and other offending trajectories have often yielded insignificant results because of an insufficient base rate of offenders following this high-rate and persistent offending trajectory. In other words, sufficient base rates are needed to perform the types of statistical analyses used to examine between-group differences in trajectory types (see Copas & Tarling, 1986; MacLennan, 1988). In effect, the theoretical relevance of studies that found no differences between chronic and moderate offending trajectories, but relied on low-risk, population-based samples, is limited (see van der Geest et al., 2009). Sampling directly from offender populations is needed to obtain adequate base rates (Blokland & Nieuwbeerta, 2005; Blokland et al., 2005; Piquero; 2008; van der Geest et al., 2009; van Domburgh et al., 2009).

Regarding the second conceptual issue, most prior studies have not included the types of neuropsychological measures that have been hypothesized to differentiate offenders following chronic versus moderate offending trajectories. Instead, predictors of offending trajectories have included parental divorce, religious involvement, school performance and IQ, impulsivity, poor concentration, early onset of antisocial behavior, criminal record of parents/siblings, and parenting style (e.g., Blokland et al., 2005; Day et al., 2012; Fergusson et al., 2000; Landsheer & van Dijkum, 2005; Nagin et al., 2005; Odgers et al., 2008; van der Geest et al., 2009; van Domburgh et al., 2009; Ward et al., 2010). Even measures of psychiatric disorder such as ADHD, conduct disorder (CD), and other behavioral or attention disorders should not be expected to help differentiate between trajectory types because most adjudicated[1] adolescent offenders have these types of disorders (Forth, 1995). These disorders are therefore rather unhelpful in predicting future offending (e.g., Gretton, Hare, & Catchpole, 2004). This limitation can be rectified by including the types of psychopathological disorders that are predominant within chronic offenders but not low/moderate offenders (e.g., Odgers et al., 2008).

Regarding the third conceptual issue, many childhood or adolescent risk factors associated with offending in adolescence will have only a distal effect on offending in adulthood. Specifically, the strength of the relationship between risk factor and offending tends to decrease over time because the risk factor does not follow the individual in lock-step (Chung et al., 2002; Losel & Bender, 2003). In other words, the effect of the risk factor does not remain stable over the life course because the risk factor is not necessarily present/stable at each developmental stage. Traditional criminogenic risk factors over time become only distally related to offending. For example, poor parental attachment and other family adversities have less of an effect on adults because adults are not as reliant on their parents as children or adolescents (e.g., Chung et al., 2002). Thus, studies that attempt to identify characteristics of individuals that are specific to certain offending trajectories would benefit from the incorporation of risk factors that are measured in adolescence and remain relatively stable across time. One such risk factor is psychopathy, which is moderately stable over the life course (Forth, Kosson, & Hare, 2003; Lynam, Caspi, Moffitt, Loeber, & Stouthamer-Loeber, 2007; Vachon, Lynam, Loeber, & Stouthamer-Loeber, 2012) and is also the type of developmental risk factor hypothesized to differentiate chronic offenders from low/moderate offenders (Dyck, Campbell, Schmidt, & Wershler, 2013; Frick, 2009; Moffitt, 1993, 2006).

Adolescence, psychopathic personality disturbance, and offending

Psychopathy is a personality disorder that is characterized by deficits in behavioral and interpersonal domains (Cleckley, 1976). Behaviorally, psychopaths are impulsive and risk taking and engage in a variety of behaviors, often criminal, in order to satisfy sensation-seeking drives. Interpersonally, psychopaths exhibit characteristics of grandiosity, manipulation, callousness, a lack of empathy, and a parasitic orientation that impacts their relationships with others (Lynam, 1996). In terms of measurement of psychopathy in adolescence, the *Psychopathy Checklist: Youth Version* (PCL:YV) is considered the gold standard; it has a high degree of reliability and validity and its twenty items are considered appropriate indicators of symptoms of psychopathy in adolescence (Edens & Campbell, 2007; Edens, Skeem, Cruise, & Cauffman, 2001). The twenty items of the PCL:YV have been separated into different factor structures. Most studies support either a parceled four-factor model (Forth et al., 2003) or a three-factor model (Cooke & Michie, 2001). The four-factor model includes an Interpersonal factor (items: glibness, grandiosity, pathological lying, manipulative), an Affective factor (items: lacks remorse, shallow affect, lacks empathy, failure to accept responsibility), a Lifestyle factor (items: boredom, impulsivity, irresponsibility, parasitic orientation, lacks realistic goals), and an Antisocial factor (items: poor anger control, early behavioral problems, juvenile delinquency, revocation of conditional release, criminal versatility). The three-factor model simply excludes the Antisocial