An exploration of individual differences in a sample of youth charged with violent sexual and non-sexual crimes

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Youth who engage in violent crime, including sexual offences, remain understudied. Research conducted on adults suggests that factors linked to antisocial and violent behaviour may enhance the current understanding of sexual offences. These factors include a consideration of how dark personality traits (such as psychopathy) and childhood maltreatment may inform the likelihood of sexual offending. Utilizing a sample of juvenile alleged violent offenders ($n = 113$), the present study examines the construct of adolescent psychopathy, with abuse as a potential moderator, in relation to offence perpetration. Contrary to some of the literature on adults, the findings indicate that neither psychopathy nor experience of abuse differentiates sexual from non-sexual violent offenders. They also suggest that scoring higher on psychopathy relates to violence more broadly. The importance of tailored programming for youth who may be at risk of offending or who require treatment in the justice system is explored.

Key words: violence; sexual violence; violence prevention; psychopathy; childhood maltreatment; juvenile justice; individual differences.

Introduction

Youth between the ages of 12 and 17 years are responsible for a disproportionate amount of crime relative to the population. In Canada, roughly 13% of all crime is perpetrated by these youth, yet they make up only 7% of the population. In fact, youth in this age range offend at twice the rate of adults aged 25 and over, and are alleged to commit over twice the number of violent offences (Allen & Superle, 2014). The perpetration of violent crime has been shown to peak around the age of 15 years (Hein et al., 2017). In 2016, individuals under 18 years of age were responsible for 10% of all violent crime in the United States (US), including murder, manslaughter, robbery,

aggravated assault, and rape (FBI, 2017). The costs of this violence mark a growing public health and criminal justice concern. Youth-perpetrated violence has been found to be the third most common cause of death for those aged 15 to 24 years (Tibbs et al., 2017). Although youth are just as capable as adults of committing severe crimes, there are comparably few substantiated explanations for this behaviour at such a young age.

In an attempt to assist in curbing the problem of youth-perpetrated violence, researchers have investigated a number of potential factors, including youth involvement in gang violence, teen dating violence, and – more explicitly – sexual violence (e.g., Watkins &

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Taylor, 2016; Wincentak, Connolly, & Card, 2017; Ybarra & Thompson, 2018). Sexual violence is of particular concern, with some statistics showing that 10 to 14% of sexual assaults in North America are attributable to youth under the age of 18 years (Brennan, 2013; Puzzanchera, 2014). The age at which violence peaks also coincides with the age at which the first acts of sexual assault and forcible rape have been found to most commonly occur (15 and 16 years, respectively; Ybarra & Thompson, 2018). In all likelihood, the incidence and prevalence of youth sexual offending is underestimated, given that some adult sexual offenders acknowledge that they committed their first undetected sexual offence before they were 18 years of age (Groth, Longo, & McFadin, 1982).

There are several reasons for the relative lack of understanding of juvenile sexual offending in comparison to adult offending. First, it is possible that comparably low recidivism rates have directed attention to seemingly more severe adult perpetrators. A minority of youth (roughly 15%) caught committing a sexual crime are likely to reoffend sexually within a five-year span (Worling & Långström, 2006; see also Caldwell, 2016). Second, youth are more likely to perpetrate sexual offences against minors (Allen & Superle, 2014), meaning that their preferred victim group may be unable to understand the act fully, report it, and/or identify their abuser. Third, researchers of this subject matter are typically faced with smaller, time-limited research samples and a lack of substantiated theory (Seto & Lalumière, 2010). However, there are well-supported theories and subsequent factors of influence within the adult sexual offender literature. Two factors in particular – personality and early childhood experiences – have also been described in youth-based theories and show promise for understanding youth-perpetrated sexual violence (e.g., Hall & Hirschman, 1991; Ward & Beech, 2006).

The psychopathic personality

‘Dark’ personality traits have been used to aid in explaining some individuals’ engagement in harmful behaviours (e.g., van Geel, Goemans, Toprak, & Vedder, 2017). Specifically, the personality disorder of *psychopathy* has long been associated with acts of violence, likely due to its predacious characteristics. Psychopathy is associated with a reduced ability to identify and relate to the emotions of others, heightened attention to vulnerability, and a propensity for interpersonal manipulation (Book, Costello, & Camilleri, 2013; Brook & Kosson, 2013). Conceivably, acting on these tendencies could be criminal in nature. This may explain why psychopathic traits are overrepresented in adult male prisons (Storey, Hart, Cooke, & Michie, 2016). Psychopaths have also been found to commit more instrumental, or goal-oriented, violence (Cornell et al., 1996; Woodworth & Porter, 2002).

The term *sexual psychopath* was coined to describe an individual whose muted emotional sensitivity, thrill-seeking behaviours, and impulsivity may contribute to the perpetration of sexual offences (Porter, Demetrio, & ten Brinke, 2010). Levels of psychopathic traits are high in some samples of adult sexual offenders, suggesting that there may be some connection between psychopathic traits and sexual violence in particular (e.g., Woodworth et al., 2013). In non-criminal samples, forceful tendencies have been documented in the psychopath’s approach to mating (Camp, Skeem, Barchard, Lilienfeld, & Poythress, 2013). For example, those scoring higher in psychopathy often pursue sexual partners opportunistically through deliberate, deceptive tactics (Harris, Rice, Hilton, Lalumière, & Quinsey, 2007). The impact of psychopathic traits is also evident in younger demographics. For example, emerging adults with psychopathic personality traits are more inclined to endorse sexually predatory behaviours and show a lack of empathy towards rape victims (O’Connell, &

Marcus, 2016; Watts, Bowes, Latzman, & Lilienfeld, 2017).

The construct of adolescent psychopathy

Psychopathic traits – including callous-unemotional (CU) features and a lack of empathy – have been identified in some samples early in life, and there is evidence to suggest they may remain stable into adulthood (Dadds et al., 2009; Lynam, Caspi, Moffitt, Loeber, & Stouthamer-Loeber, 2007). The Psychopathy Checklist – Youth Version (PCL-YV; Forth, Kosson, & Hare, 2003) can be used to measure psychopathic traits in those aged 12 to 18 years, although there is no cut-off for diagnoses. The total score is compiled from eight Factor 1 items pertaining to interpersonal (e.g., grandiose sense of self) and affective (e.g., lack of remorse) deficits, and ten Factor 2 items concerning antisocial tendencies (e.g., early behavioural problems) and externalizing behaviours (e.g., impulsivity and sensation-seeking). An additional two items pertaining to impersonal sexual behaviour and unstable interpersonal relationships are included in the total score. Youth who are responsible for criminal behaviour generally score higher than non-criminal youth on the PCL-YV. It is estimated that one quarter of adolescent offenders exceed the adult cut-off score of 30 out of a possible 40 (Forth et al., 2003). One study found that incarcerated adolescent males from a maximum security detention facility averaged a PCL-YV score of 24, with a range of 2 to 35 (Kahn, Ermer, Salovey, & Kiehl, 2016).

There is ample evidence to warrant the application of the PCL-YV in clinical and research contexts. However, its suitability for use in ethnically diverse populations is an established conversation in personality and youth literature, with conflicting and sometimes controversial conclusions (e.g., Lynn, 2002). Sitney, Caldwell, and Caldwell (2016) found that African American delinquent youth scored significantly higher in psychopathic traits as measured by the PCL-YV than Caucasian youth. However, an earlier

meta-analysis determined that there is little difference in the PCL-YV scores between Black and White youth (McCoy & Edens, 2006). One explanation for these inconsistent data is the potentially differing impact of sociocultural and environmental factors across samples (e.g., exposure to community violence; Baskin-Sommers et al., 2016). In addition, Tsang, Piquero, and Cauffman (2014) propose that youth are also more likely to be over- or under-scored on particular items given the perceived norms for their ethnic groups. The use of the PCL-YV within ethnic minorities therefore remains an important line of inquiry.

Antisocial tendencies (e.g., increased impulsivity and sensation-seeking) in adolescence have also been linked to an earlier onset of sexual offending (McCuish, Lussier, & Corrado, 2015). However, researchers have yet to establish as clear an association between psychopathic traits and sexual offending in youth as they have in adults. Interestingly, Boonmann et al. (2015) note that the youth with a history of sexual crimes in their study had a lower average of self-reported psychopathy than their non-sexual offender comparison group. On the other hand, Parks and Bard (2006) applied the PCL-YV to a sample of adolescent male sexual offenders and found that elevated Factor 1 traits are predictive of sexual recidivism, while Factor 2 traits are predictive of non-sexual recidivism. An enhanced understanding of how psychopathic traits relate to youth-perpetrated sexual and non-sexual violence could reduce the likelihood of negative outcomes through treatment – or ideally, through early intervention. For example, developmental factors such as abuse have been found to increase childhood CU traits carrying into adolescence (Byrd, Hawes, Loeber, & Pardini, 2016).

The role of aversive childhood experiences

Social learning theory suggests that individuals exposed from a young age to antisocial behaviours – such as aggression (either experiencing or witnessing it) – are more prone to

replicating those learned behaviours (Bandura, 1978). Indeed, research supports the assertion that those reared in dysfunctional or disadvantaged households are at greater risk for adverse outcomes, including criminal behaviours (Watts & McNulty, 2013). Childhood maltreatment has been found to relate to externalizing behavioural problems, including violence in adolescence (e.g., carrying weapons, assault, dating violence; Duke, Pettingell, McMorris, & Borowsky, 2010; Wekerle et al., 2009). Understanding childhood maltreatment (herein defined as physical abuse, sexual abuse, emotional abuse, and/or neglect) and its association with a particular subset of violence is a useful avenue for both theoretical development and preventative programming.

Research has found, across multiple samples, that juvenile sexual offenders have experienced more maltreatment – not exclusively childhood sexual abuse – than non-sexual offenders (Seto & Lalumière, 2010; Wanklyn, Ward, Cormier, Day, & Newman, 2012). It is possible that negative early life experiences impact self-regulation such that youth are unable to fight the impulses which may contribute to sexually deviant behaviour as pubescent sexual curiosities peak (Marshall & Marshall, 2000). It is also possible that maltreatment impairs healthy perceptions of appropriate interpersonal relations and decision-making about sex. This may help to explain why childhood emotional abuse has been connected to relationship aggression, including partner sexual violence, in adolescence (Crawford & Wright, 2007; Zurbriggen, Gobin, & Freyd, 2010). In summary, while there is a consensus that childhood maltreatment is influential in aversive outcomes, little is known about whether or not it is a better predictor of sexual or non-sexual violence in particular.

Maltreatment and psychopathy

Childhood maltreatment and unhealthy parental relations have been found to be influential in the development of psychopathic traits in

some individuals, possibly due to a diminished empathic response in reaction to stressful experiences (Gao, Raine, Chan, Venables, & Mednick, 2010; Porter, 1996). In the light of mounting studies that consider a potential biological basis to psychopathy, childhood maltreatment may be better considered as a risk or protective factor in relation to life outcomes (Forsman, Lichtenstein, Andershed, & Larsson, 2008; Korponay et al., 2017). For example, some studies have found that adults who were maltreated as children perpetrate violence and score high on the Psychopathy Checklist (PCL; see Lang, Af Klinteberg, & Alm, 2002; Weiler & Widom, 1996). In one study, physical familial abuse was identified as a moderator that strengthens the relationship between psychopathy and criminal behaviour (Lynam, Loeber, & Stouthamer-Loeber, 2008). However, given that other research has not found such a link between maltreatment and psychopathy (e.g., Poythress, Skeem, & Lilienfeld, 2006), there is reason to further explore the notion of a possible association and its impact on outcomes. Searching for a link to the *type* of perpetrated violence (i.e., sexual vs. non-sexual) will allow for more refined, better informed practices. And from a practical perspective, understanding how individual differences can play a role in the type of violence perpetrated may highlight protective factors that can diminish the negative impact of risk factors.

The present study

Violence is a subset of criminal behaviour that desperately warrants additional empirical enquiry amongst perpetrators under 18 years of age. In adult samples, the study of psychopathic traits has contributed to better understanding the perpetration of violent sexual and non-sexual crimes (e.g., Woodworth et al., 2013). Unfortunately, further empirical data examining this relationship in youth are needed, despite the suggestion that psychopathic traits in youth exist, are important to outcomes, and are viable for research (e.g.,

Hawes et al., 2018; Lee, 2018). Furthermore, individual differences in childhood environment are often overlooked – despite evidence suggesting that their role can be instrumental.

In addition to ‘*red flagging*’ those who are at risk, it seems advantageous to understand the *protective* influences that could lead to preventative programming. Likely affecting the success of modern programming is the persistent lack of a reliable, measurable distinction between adolescent sexual and non-sexual offenders. A broader comprehension of adolescent sexual offenders would be indispensable to scholars and practitioners who have already established promising early intervention and treatment plans (e.g., multi-systemic therapy; Borduin, Schaeffer, & Heiblum, 2009). The present study aims to address this knowledge gap by conducting one of the first examinations of differences in youth charged with violent sexual and non-sexual crimes on a clinical measure of youth psychopathy, while factoring in the potential moderator of an aversive childhood environment.

Methods

Sample

The research sample was obtained from a youth forensic facility in the US. Trained clinical staff at this facility anonymized a convenience sample of data from 130 youth aged 13 to 19 years ($M_{\text{age}} = 17.06$, 120 males) who had been evaluated following criminal charges between 2012 and 2016. The final sample for analysis includes records from 113 male alleged violent offenders, of which 21 had sexually violent charges.

Measures

Psychopathic traits: the PCL-YV

Trained staff conducted interviews using the 20-question, 4-facet model of the PCL-YV (Forth et al., 2003), which has demonstrated good predictive validity for reoffending behaviours (e.g., Schmidt, Campbell, & Houlding,

2011; Viljoen, Elkovitch, Scalora, & Ullman, 2009). It has also shown comparable convergent validity with other measures of psychopathic traits (e.g., the Youth Psychopathic Traits Inventory; Andershed, Hodgins, & Tengström, 2007) and adequate test–retest reliability Intraclass Correlation Coefficient ($ICC = .66$; Skeem & Cauffman, 2003). Comparable to the adult version, the PCL-YV demonstrates good internal consistency, with items reflecting Cronbach’s alpha coefficients ranging from .85 to .94 (Forth et al., 2003). The PCL-YV is a semi-structured interview that typically takes up to 90 minutes to administer. Items are scored on a three-point scale, where zero indicates that the item does not apply (e.g., the youth has not engaged in any sexual relations) and two indicates that the item undeniably applies.

The PCL-YV may be conceptualized as a downward extension of the adult measure, the Psychopathy Checklist – Revised (PCL-R). Specifically, the PCL-R was revised for adolescents in order to reflect (a) normative adolescent behaviours, (b) peer and family-provided testimony, (c) items befitting a younger demographic, and (d) scoring for behaviour enduring since late childhood (Forth et al., 2003). For example, the titles for 12 of the 20 items were modified (e.g., Item 1’s Glibness/superficial charm was modified to Impression management) so as to better emphasize the attribute in question. The descriptions for 11 items were also expanded or reduced in order to capture the pertinent behaviours, and additional sources of information for scoring (including examples) were allocated to 18 items. For instance, Item 11’s Impersonal sexual behaviour (previously named Promiscuous sexual behaviour) is now focused on the meaning of sexual activity to the adolescent, rather than on frequency. With these changes, the PCL-YV has been reconfigured to distinguish typical from atypical adolescent behaviours – or rather, to differentiate between the consequences of adolescent cognitive development (e.g., egocentrism) and

antisocial personality (e.g., grandiose sense of self-worth). Unlike the PCL-R, there is no mandated cut-off score for a clinical diagnosis of psychopathy in adolescence. This aligns with the currently supported belief that psychopathy is best considered as a continuous, rather than dichotomous, construct (Boduszek, Debowska, & Willmott, 2017). For classification purposes, some researchers apply the adult standard of 30 (e.g., Gretton, McBride, Hare, O'Shaughnessy, & Kumka, 2001). As such, the PCL-YV is by design also appropriate for grouping or distinguishing between youth for research purposes (Forth et al., 2003).

Procedure

Due to concerns surrounding the predictive validity and efficacy of the PCL-YV for the assessment of adolescent girls, and the use of males in comparative studies (e.g., Vincent, Odgers, McCormick, & Corrado, 2008), females were excluded from the study. Furthermore, as the main research question posed in the present study pertains to violent crime, any adolescent male who was charged with only non-violent crime(s) was excluded. The sample was classified into youth charged with violent non-sexual crimes and youth charged with violent sexual crimes by reference to Title 21 of Oklahoma State law. All sexual charges (e.g., incest, forcible sodomy, rape, lewd acts or proposal with a child, attempts at committing any sexual crime) were considered violent by this standard. Examples of violent non-sexual charges include, but are not limited to, murder in the first degree, assault with a deadly weapon, extortion, burglary, and robbery. The data were coded for the *number* of violent charges, with a very good inter-rater reliability demonstrated by a Cronbach's alpha of .96, and an ICC of 95% confidence interval (CI, [.92–.97], $p < .001$).

From the interview files, PCL-YV Question #58 ('Were you ever abused physically, sexually, or emotionally?') was coded dichotomously as 'Yes/no' for the presence or absence of childhood abuse. In some cases,

interviewers made a note to refer to the clinical interview, in which case the family history section of the available file was reviewed ('Child abuse: sexual, physical, emotional, neglect'). As abuse was self-reported in the interviews, all available information was carefully examined to determine if the youth identified abuse in a related question but then denied it when directly asked. For cases where only one interview was available (i.e., only the PCL-YV or the clinical interview), the appropriate sections were examined for indications of abuse and documented denial of abuse (considered absence), presence of abuse, or unavailable information (e.g., if there was no response written for the interview question). For 34 youth there was no information available, either due to the lack of a corresponding interview or the absence of information in the available interview(s); it is assumed that in these cases there was no abuse, although this is not certain. The calculated inter-rater reliability for the coding of abuse indicates an excellent consensus between the coders, $\kappa = .86$ (95% CI, 0.75–0.97, $p < .001$). The form of abuse was coded for future analysis, but for the purpose of the present analysis it is introduced as a dichotomous variable, given the breadth of the abuse type and the small numbers (e.g., $n = 1$) associated with each group.

Results

The original data set generated from the forensic facility spreadsheet includes a total of 130 youth. As mentioned above, all 10 females were excluded from the analyses, as were the 7 males charged exclusively with non-violent crimes. The final sample thus includes 113 male alleged violent offenders, 21 of which were charged with violent sexual crimes and 92 of which were charged with violent non-sexual crimes. Of the sample, 80 youth had corresponding interview files available in addition to the individual difference measure scores ($n = 62$ for PCL-YV and clinical,

Table 1. Bivariate correlations for the main variables (full sample).

Variable	1	2	3	4	5
1. PCL-YV total score					
2. PCL-YV Factor 1	.85**				
3. PCL-YV Factor 2	.87**	.53**			
4. Maltreatment	.13	.05	.16		
5. Sexual offence	.14	.12	.09	.17	

Note: * $p < .05$; ** $p < .001$.

$n = 17$ for PCL-YV only, $n = 1$ for clinical only). The PCL-YV total score was unavailable for 2 youth.

The mean age of the sample at time of assessment was 17.09 ($SD = 0.87$) years, with a range of 13.6 to 19.4 years. The sample includes Black (43.4%), White (35.4%), Native American (8.8%), Hispanic (6.6%), and mixed race (5.8%) individuals.

History of maltreatment

The data regarding personal history obtained from the PCL-YV and the clinical interviews are limited by the availability of these interviews and their content. Information pertinent to maltreatment was available for 79 youth, of which 57% ($n = 45$) identified that they had experienced some form of childhood abuse. A total of 11 maltreated youth were excluded (for being female or non-violent offenders), leaving 34 maltreated youth in the final analysis. Of the youth charged with one or more violent sexual offences, 57.9% ($n = 11$) had a history of abuse; data were unavailable for 2 alleged perpetrators of violent sexual offences. Information pertaining to abuse was available for 60 of the youth who were charged with one or more violent non-sexual offences, of which 38.3% ($n = 23$) had been victimized in childhood.

A total of 10 youth exclusively experienced abuse of a physical nature, 2 youth exclusively experienced sexual abuse, 2 youth exclusively experienced neglect, and 3 youth exclusively reported abuse of a verbal/emotional nature. The remainder of the youth

who self-reported maltreatment identified combined types: physical and emotional abuse ($n = 10$), sexual and emotional abuse ($n = 1$), physical and sexual abuse ($n = 1$), physical, sexual, and emotional abuse ($n = 2$), neglect and physical and emotional abuse ($n = 2$), and neglect and physical, emotional, and sexual abuse ($n = 1$).

Psychopathy

The PCL-YV mean total score of the sample is 21.67 ($SD = 8.08$, range = 39). The youth scored higher on Factor 2 items ($M = 11.35$, $SD = 4.26$) than Factor 1 items ($M = 8.19$, $SD = 4.17$), $t(109) = -7.96$, $p < .001$, 95% CI $[-3.88, -2.33]$. The youth charged with violent non-sexual offences had a mean total score of 21.13 ($SD = 8.19$), ranging from 1 to 35. These youth scored higher on Factor 2 items ($M = 11.17$, $SD = 4.25$) than on Factor 1 items ($M = 7.96$, $SD = 4.25$), $t(88) = -7.35$, $p < .001$, 95% CI $[-4.01, -2.3]$. The youth charged with violent sexual offences had a mean total score of 23.95 ($SD = 7.33$), ranging from 6 to 40. Akin to their non-sexual counterparts, these youth also scored higher on Factor 2 items ($M = 12.10$, $SD = 4.38$) than on Factor 1 items ($M = 9.19$, $SD = 3.78$), $t(20) = -3.05$, $p = .01$, 95% CI $[-4.89, -0.92]$. However, there are racial differences in psychopathic traits such that Black youth scored higher in psychopathy ($M = 25.08$, $SD = 6.40$) than White youth ($M = 18.96$, $SD = 7.66$), $F(1, 87) = 16.71$, $p > .001$.

Table 2. Binary logistic regression model predicting offence type.

		95% CI for odds ratio		
	<i>b</i>	Lower	Odds	Upper
Step 1				
Constant	−1.24			
PCL-YV	0.02	0.96	1.02	0.16
Maltreatment	−0.77	0.16	0.46	1.34
Step 2				
Constant	−0.68			
PCL-YV	0.00	0.91	1.00	1.10
Maltreatment	−1.82	0.01	0.16	4.96
PCL-YV × Maltreatment	0.05	0.91	1.05	1.20

Bivariate correlation analysis

Initial bivariate correlations were conducted using the main variables of psychopathic traits (total, Factor 1, Factor 2), maltreatment, and the presence of one or more sexual offences. Table 1 depicts the associations between the variables. There is a positive relationship between the PCL-YV total score and both the Factor 1 ($n = 111$, $r^2 = .72$) and Factor 2 ($n = 110$, $r^2 = .76$) scores, and between the Factor 1 and Factor 2 scores ($n = 110$, $r^2 = .28$).

Supplementary bivariate correlations were conducted for descriptive information pertaining to the youth sample and the number of charges obtained. The PCL-YV total score for the full sample positively correlates with the number of violent charges ($n = 111$), $r = .25$, $p \leq .001$, $r^2 = .06$, and with the total number of charges ($n = 111$), $r = .37$, $p < .001$, $r^2 = .14$.

Logistic regression

A binary logistic regression was performed with type of offence as the outcome and PCL-YV score and maltreatment as the predictors (Table 2). The main effects were entered in the first step followed by an interaction in the second step. When the type of offence is predicted from PCL-YV score and maltreatment,

the model is not significant, model $\chi^2_N(2) = 2.75$, $p = .25$, $r_n^2 = .05$. There is no change in prediction accuracy from 75.3% ($-2LL = 86.05$) using just the constant to 75.3% with the two predictors added ($-2LL = 83.29$). As shown in Step 1 of Table 2, none of the individual predictor variables are significant. Similarly, when the interaction is added, neither the model, $\chi^2_N(3) = 3.16$, $p = .37$, $r_n^2 = .06$, nor the interaction itself, $\chi^2_N(1) = .41$, $p = .52$, are significant.

When a second binary regression analysis was run, adding race as a third predictor variable and assessing two-way and three-way interactions with PCL-YV score and maltreatment, as well as with the initial binary logistic analysis, neither the main effects, the interactions, nor the overall models were found to be significant.

In the wake of these findings, bivariate correlations were run on split data based on self-reported maltreatment in order to examine the relationships between psychopathic traits and charges. In the youth who had not experienced childhood abuse, the total psychopathy score positively correlates with the number of violent charges ($n = 44$), $r = .42$, $p = .004$, $r^2 = .18$, and with the total number of charges ($n = 44$), $r = .44$, $p = .003$, $r^2 = .19$.

The youth who had experienced childhood abuse do show some differences to

their non-abused counterparts. There is a positive association between the total number of charges and the total PCL-YV score ($n = 44$), $r = .39$, $p = .03$, $r^2 = .15$, and between the total number of charges and the Factor 2 score ($n = 33$), $r = .47$, $p < .001$, $r^2 = .22$.

Discussion

The present study affords an opportunity to examine the dispositional and environmental characteristics of a sample of youth charged with committing serious crimes. It also affords an opportunity to consider the role of psychopathy amongst youth populations and its influence on specifically sexual and non-sexual offending behaviours of a violent nature. The inclusion of childhood maltreatment in this equation is important in the light of the evidence for the influence of aversive childhood experiences and its fairly unclear association with psychopathy. This study, then, is an important step in considering individual differences in the context of understanding and preventing violent crime amongst younger demographics. Within the present sample, psychopathy and childhood maltreatment were not found to be predictors of a specific type of adolescent offending. One central finding, however, is the relationship between psychopathic traits and the number of youth offences. This includes both total offences on file (incorporating violent and any non-violent offences in addition) and exclusively violent offences. It is therefore advocated that consideration is given to individual differences at every level of initiatives targeting youth violence.

Psychopathic traits

The youth in this sample exhibited strong psychopathic traits, scoring 16 to 17 points higher than standard community youth samples (Forth et al., 2003). Both the mean total and the factor scores on the PCL-YV are on par with previously recorded scores amongst incarcerated youth (e.g., Cale, Lussier, McCuish, & Corrado, 2015). However, unlike

the findings of some adult offender research (e.g., Krstic et al., 2017; Woodworth et al., 2013), the psychopathic traits in this sample could not be used to distinguish violent sexual offenders from non-sexual ones. Using a clinical measure, these findings support the conclusion of Boonmann et al. (2015) that self-reported psychopathic traits in young sexual offenders do not distinguish them from other young violent offenders. One possible explanation for this finding is that other individual factors (e.g., broader personality traits, sexual history, substance use, brain structure, genetics) exercise a greater influence on sexual perpetration. Furthermore, it may be that psychopathic traits in youth are better associated with delinquency in general rather than being exclusive to a particular type. Indeed, in the present sample, higher levels of psychopathic traits were found to be significantly associated with more juvenile charges. This relationship holds for charges coded as violent, and for the total number of charges on file. These findings add to a body of literature that supports the role of psychopathic traits in juvenile criminal behaviour as a whole (e.g., Campbell, Porter, & Santor, 2004). From a preventative standpoint, the early identification of such traits may reduce the likelihood of criminal engagement if appropriate intervention and treatment is then implemented – for example, redirecting youth with psychopathic traits (e.g., manipulative tendencies) into more positive avenues early on could channel otherwise problematic behaviours towards effective outcomes (e.g., in sectors of business or finance).

In addition to an examination of the PCL-YV total score, it is beneficial to consider the importance of the trait profiles and their influence (Ridder & Kosson, 2018). For example, Factor 1 traits (e.g., callousness, deceitfulness, propensity for manipulation) have been associated with goal-oriented, predatory violence in both adults and adolescents (Blais, Solodukhin, & Forth, 2014; Flight & Forth, 2007). Although some instances of sexual violence have been found to necessitate

premeditation (e.g., Declercq, Willemsen, Audenaert, & Verhaeghe, 2012), in the present sample no differences were found in Factor 1 traits between sexually and non-sexually violent youth. Both groups scored higher on Factor 2 traits than on Factor 1. This suggests a proclivity for stimulation seeking, impulsivity, and criminality that is consistent with other samples of adjudicated and incarcerated young males (e.g., Forth et al., 2003). Itemization, i.e. the examination of the individual items included in Factor 2, may prove beneficial for treatment. For example, low self-control in juveniles has been found to be a superior predictor of violent crime perpetration (DeLisi, Tostlebe, Burgason, Heirigs, & Vaughn, 2018). Therefore, targeting Factor 2 traits in a *risk reduction approach* – while still accounting for Factor 1 traits – could interrupt patterns of delinquency (Wong, Gordon, Gu, Lewis, & Olver, 2012). Understanding motivations for offending behaviours would be central to this method.

Childhood maltreatment

Childhood maltreatment was not found to significantly differentiate between the sexual and non-sexual violent offenders in the present sample. It also does not interact with psychopathic traits, contrary to the findings of Lynam et al. (2008). This finding is considered in the light of the research that continues to support the key role of a tumultuous upbringing as influential in delinquency (e.g., Watts & McNulty, 2013). It is also possible that maltreatment is best considered as a factor of interest in violent behaviour overall. Furthermore, it is conceivable that there is a more complex relationship between psychopathy and childhood maltreatment than was found herein, particularly in regard to type and severity of abuse (e.g., Edens, Skopp, & Cahill, 2008). The source of maltreatment may also be influential; research has found that the context in which a youth is exposed to violence (familial vs. community) is associated with different forms of juvenile offending

(Fix, Fix, Wienke Totura, & Burkhart, 2017). The size of the present sample does not permit such extensive analyses; however, consistent with other studies documenting physical abuse as being the most prevalent type in correctional (as opposed to community) samples, there is also a higher prevalence of physical (29.41%) compared to sexual (5.8%) abuse in the present sample (McCuish, Cale, & Corrado, 2017).

Nearly half of the present sample of youth reported at least one form of childhood maltreatment. This may be underestimated given that males are less forthcoming and more inconsistent in the disclosure of abuse – particularly sexual abuse (Finkelhor, Hotaling, Lewis, & Smith, 1990; McKinney, Harris, & Caetano, 2009). More broadly, research has shown that youth face tremendous barriers to reporting abuse, including lack of support and feelings of guilt or shame (Lemaigre, Taylor, & Gittoes, 2017). The present finding, then, at a minimum highlights the disproportionate amount of childhood adversity amongst youth involved in the justice system. Of the youth whose charges included at least one violent sexual offence almost 60% reported experiencing some form of childhood abuse, compared to 38% of the youth who exclusively received violent non-sexual charges. Given that a higher proportion of violent sexual perpetrators had experienced abuse in this relatively small sample, it would be interesting to examine if a larger sample size yielded stronger findings.

There is also an intriguing finding in regard to the youth who self-identified as victims of childhood maltreatment compared to those who did not. In those youth who did not self-report maltreatment, the PCL-YV total score positively correlates with both the number of violent charges and the total number of charges (violent and non-violent). This suggests that within this group, the stronger the psychopathic traits, the more extensive the criminal behaviour. However, in the youth who self-reported maltreatment there is no significant correlation of PCL-YV scores to

violent charges specifically; rather, there is a correlation between the total number of charges and psychopathic traits, and between the total number of charges and specifically Factor 2 scores. There do appear to be subtle behavioural differences based on environmental experiences and their interaction with personality.

Implications

The findings of the present study can potentially be used to better inform best practice when working with youth who are at risk for, or involved in, the criminal justice system. They may be useful for preventative programs that have a dual-prevention approach to sexual and non-sexual violence. For example, the dating violence prevention program '*Safe Dates*' was also successful in reducing general acts of violence in youth (e.g., weapon carrying; Foshee et al., 2014). In terms of treatment, the considerable diversity within the sample suggests that a multi-systemic approach may be favourable for young violent sexual and non-sexual offenders. Standard multi-systemic therapy addresses diversity in both familial turmoil and cognitive processes (e.g., deficits of empathy; Borduin, Henggeler, Blaske, & Stein, 1990). This treatment strategy has been shown to be more successful in reducing both sexual and non-sexual recidivism than typical outpatient treatment assigned through juvenile court, such as CBT (Borduin et al., 2009). Overall, front-line workers should be cognizant of the potential for complex individual differences and their impact on offender outcomes. For example, youth probation officers have been found to express sympathy towards youth with a history of childhood maltreatment while being stricter on those exhibiting psychopathic traits (Vidal & Skeem, 2007). Both factors are most often accessible, or assessable, for front-line workers in the youth justice system. Awareness at every stage can reduce biases and maximize positive treatment outcomes.

Although the present study was not designed to test the utility of the PCL-YV for use with adolescents, the measure appears to have captured dark personality traits within the sample reliably and validly. While useful for research, scores for decision-making purposes (e.g., sentencing or treatment) should be considered carefully in conjunction with supporting evidence, as individual differences (e.g., familial environment and support) may influence outcomes. For example, given the potential ramifications of early labeling (e.g., negative perceptions; Boccaccini, Murrie, Clark, & Cornell, 2008), a better understanding of how to best capture and represent psychopathic traits in adolescents (and children) for diagnostic purposes is needed (Salekin, 2016).

Present and future considerations

This study's findings should be considered in the context of several limitations that may inform future research. First, despite the special opportunity to obtain these data, the sample is ultimately relatively small and specialized. Consequently, the number of youth restricted the ability to compare offending behaviour by specific type of abuse (e.g., familial vs. extrafamilial, contact vs. non-contact), which could have impacted or at least expanded the scope of the findings. In addition, youth who were exclusively sexual offenders were not compared to those who had additional non-sexual charges; all were categorized the same. Butler and Seto (2002) found that sexual offenders with other non-sexual offences (defined as 'sex plus' offenders) have earlier conduct problems and poorer expected outcomes than those who exclusively commit sexual crimes (defined as 'sex only' offenders). In the present study, only 6 of the 21 youth coded as sexually violent were sex only offenders; the remainder had other non-sexual charges on file. Because the data do not include details of the criminal offences, there is no information regarding if and how the non-sexual charges are related to the sexual

ones (e.g., sexual assault *during* a burglary). Other researchers who have access to larger samples and offence details could assess for such differences (e.g., type of charges, victim characteristics) between sex only and sex plus offenders.

It was possible, however, to assess for differences in PCL-YV score attributable to ethnic background with the available demographic information. This was carried out in the light of evidence suggesting that the PCL-YV may yield higher scores for Black youth (e.g., Sitney et al., 2016). The Black youth in the present study did score significantly higher on the PCL-YV total scores than the White youth, with no other racial differences. However, follow-up analyses accounting for race as a predictor variable proved non-significant, indicating that race does not play a role in the general findings. In the interim, it is felt that racial differences in youth are informative. More specifically, it is a reminder to consider sample diversity as a possible explanation for results. Future researchers should be encouraged to account for prospective ethnic differences when using the PCL-YV, and also to critically consider why such differences may emerge (e.g., cultural norms; Baskin-Sommers et al., 2016; Tsang et al., 2014).

A larger comparison group of juvenile sexual offenders would have been ideal for enabling additional avenues of enquiry. Longitudinal data is drastically lacking in the literature regarding violent youth offenders (Tremblay, 2006), yet it holds substantial promise in understanding onset, duration, and rehabilitation (or recidivism) throughout the lifespan. It is hoped that the present study encourages multidisciplinary collaboration in an effort to produce richer data sets. It is anticipated that there will be disparity in victim age, victim relationship, motivation for the crime, and type of sexual assault perpetrated (e.g., lewd proposal versus sodomy), a luxury of information not available in the present study. Nonetheless, especially considering the dearth of extant studies, the insights procured

herein should be beneficial to scholars in pinpointing directions for future research.

Conclusion

Front-line workers who routinely assess and are familiar with youth behaviour need to remain informed for preventative practice. A considerable component of refining procedures is recognizing which information is pertinent to request, evaluate, and consider for appropriate responses preceding or even succeeding criminal behaviour. With this goal in mind, two substantiated factors in the literature on adult violence – psychopathic personality and childhood maltreatment – were assessed in a youth population charged with committing violent sexual or non-sexual crimes. Although psychopathy and childhood maltreatment were not found to differentiate between sexual and non-sexual violent offending, the findings do lend support to red flags behind adolescent violence as a whole. For example, given the positive correlation between psychopathic traits and the number of offences (total and violent), recognizing dark personality traits such as psychopathy – as evidenced in *early* onset problematic behaviours – could curtail criminality. The prospective value of the PCL-YV should thus be weighed against evidence for adverse perceptions and decision-making when labels are ascribed (Boccaccini et al., 2008; Murrie, Cornell, & McCoy, 2005). Also, new knowledge from the present study has emerged which should identify areas for new research and applications, particularly in relation to the prominence of Factor 2 traits in this sample of young offenders. Using items from Factor 2 of the PCL-YV to pinpoint anti-social tendencies could help to tailor individualized, behaviour-targeted treatment. Overwhelmingly, the present findings highlight that while the adult literature provides groundwork for the study of younger criminals, juveniles must be acknowledged as distinct and heterogeneous. For example, it would appear that the relationships between

psychopathic traits and sexual violence that are documented in adult males (e.g., Woodworth et al., 2013) do not exist in the present sample. Therefore, an integrated approach that considers *multiple* diverse factors to explain the disproportionate involvement of some youth in sexual and non-sexual violence is timely.

Disclosure statement

No potential conflict of interest was reported by the authors.

Ethical standards

Declaration of conflicts of interest

Katherine Rose has declared no conflict of interest

Dr. Michael Woodworth has declared no conflict of interest

Jennifer Minton has declared no conflict of interest

Ethical approval

This article does not contain any studies with human participants or animals performed by any of the authors.

References

- Allen, M., & Superle, T. (2014). *Youth crime in Canada, 2014*. Retrieved from <http://www.statcan.gc.ca/pub/85-002-x/2016001/article/14309-eng.htm>
- Andershed, H., Hodgins, S., & Tengström, A. (2007). Convergent validity of the Youth Psychopathic Traits Inventory (YPI) association with the Psychopathy Checklist: Youth Version (PCL-YV). *Assessment*, 14(2), 144–154. doi:10.1177/1073191106298286
- Bandura, A. (1978). Social learning theory of aggression. *Journal of Communication*, 28(3), 12–29. doi:10.1111/j.1460-2466.1978.tb01621.x
- Baskin-Sommers, A., Baskin, D., Sommers, I., Casados, A., Crossman, M., & Javdani, S. (2016). The impact of psychopathology, race, and environmental context on violent offending in a male adolescent sample. *Personality Disorders: Theory, Research, and Treatment*, 7(4), 354–362. doi:10.1037/per0000168
- Blais, J., Solodukhin, E., & Forth, A.E. (2014). A meta-analysis exploring the relationship between psychopathy and instrumental versus reactive violence. *Criminal Justice and Behavior*, 41(7), 797–821. doi:10.1177/0093854813519629
- Boccaccini, M.T., Murrie, D.C., Clark, J.W., & Cornell, D.G. (2008). Describing, diagnosing, and naming psychopathy: How do youth psychopathy labels influence jurors? *Behavioral Sciences & the Law*, 26, 487–510. doi:10.1002/bsl.821
- Boduszek, D., Debowska, A., & Willmott, D. (2017). A new model of psychopathy. *The Custodial Review*, 81, 16–17.
- Book, A.S., Costello, K., & Camilleri, J.A. (2013). Psychopathy and victim selection: The use of gait as a cue to vulnerability. *Journal of Interpersonal Violence*, 28(11), 2368–2383. doi:10.1177/0886260512475315
- Boonmann, C., Jansen, L.M.C., 't Hart-Kerkhoffs, L.A., Vahl, P., Hillege, S.L., Doreleijers, T.A.H., & Vermeiren, R.R.J.M. (2015). Self-reported psychopathic traits in sexually offending juveniles compared with generally offending juveniles and general population youth. *International Journal of Offender Therapy and Comparative Criminology*, 59(1), 85–95. doi:10.1177/0306624X13508612
- Borduin, C.M., Henggeler, S.W., Blaske, D.M., & Stein, R.J. (1990). Multisystemic treatment of adolescent sexual offenders. *International Journal of Offender Therapy and Comparative Criminology*, 34(2), 105–113. doi:10.1177/0306624X9003400204
- Borduin, C.M., Schaeffer, C.M., & Heiblum, N. (2009). A randomized clinical trial of multisystemic therapy with juvenile sexual offenders: Effects on youth social ecology and criminal activity. *Journal of Consulting and Clinical Psychology*, 77(1), 26–37. doi:10.1037/a0013035
- Brennan, S. (2013). *Police-reported crime statistics in Canada, 2011*. Retrieved from <http://www.statcan.gc.ca/pub/85-002-x/2012001/article/11692-eng.htm>
- Brook, M., & Kosson, D.S. (2013). Impaired cognitive empathy in criminal psychopathy: Evidence from a laboratory measure of empathic accuracy. *Journal of Abnormal Psychology*, 122(1), 156–166. doi:10.1037/a0030261

- Butler, S.M., & Seto, M.C. (2002). Distinguishing two types of adolescent sex offenders. *Journal of the American Academy of Child & Adolescent Psychiatry*, 41, 83–90. doi:10.1097/00004583-200201000-00015
- Byrd, A.L., Hawes, S.M., Loeber, R., & Pardini, D.A. (2016). Interpersonal callousness from childhood to early adolescence: Developmental trajectories and early risk factors. *Journal of Clinical Child and Adolescent Psychiatry*, 47(3), 467–482. doi:10.1080/15374416.2016.1144190
- Caldwell, M.F. (2016). Quantifying the decline in juvenile sexual recidivism rates. *Psychology, Public Policy, and Law*, 22(4), 414–426. doi:10.1037/law0000094
- Cale, J., Lussier, P., McCuish, E., & Corrado, R. (2015). The prevalence of psychopathic personality disturbances among incarcerated youth: Comparing serious, chronic, violent and sex offenders. *Journal of Criminal Justice*, 43(4), 337–344. doi:10.1016/j.jcrimjus.2015.04.005
- Campbell, M.A., Porter, S., & Santor, D. (2004). Psychopathic traits in adolescent offenders: An evaluation of criminal history, clinical, and psychosocial correlates. *Behavioral Sciences & the Law*, 22(1), 23–47. doi:10.1002/bsl.572
- Camp, J.P., Skeem, J.L., Barchard, K., Lilienfeld, S.O., & Poythress, N.G. (2013). Psychopathic predators? Getting specific about the relation between psychopathy and violence. *Journal of Consulting and Clinical Psychology*, 81(3), 467–480. doi:10.1037/a0031349
- Cornell, D.G., Warren, J., Hawk, G., Stafford, E., Oram, G., & Pine, D. (1996). Psychopathy in instrumental and reactive violent offenders. *Journal of Consulting and Clinical Psychology*, 64(4), 783–790. doi:10.1037/0022-006X.64.4.783
- Crawford, E., & Wright, M. O. D. (2007). The impact of childhood psychological maltreatment on interpersonal schemas and subsequent experiences of relationship aggression. *Journal of Emotional Abuse*, 7(2), 93–116. doi:10.1080/14999013.2012.746760
- Dadds, M.R., Hawes, D.J., Frost, A.D., Vassallo, S., Bunn, P., Hunter, K., & Merz, S. (2009). Learning to ‘talk the talk’: The relationship of psychopathic traits to deficits in empathy across childhood. *Journal of Child Psychology and Psychiatry*, 50(5), 599–606. doi:10.1111/j.1469-7610.2008.02058.x
- Declercq, F., Willemsen, J., Audenaert, K., & Verhaeghe, P. (2012). Psychopathy and predatory violence in homicide, violent, and sexual offences: Factor and facet relations. *Legal and Criminological Psychology*, 17, 59–74. doi:10.1348/135532510X527722
- DeLisi, M., Tostlebe, J., Burgason, K., Heirigs, M., & Vaughn, M. (2018). Self-control versus psychopathy: A head-to-head test of general theories of antisociality. *Youth Violence and Juvenile Justice*, 16(1), 53–76. doi:10.1177/1541204016682998
- Duke, N.N., Pettingell, S.L., McMorris, B.J., & Borowsky, I.W. (2010). Adolescent violence perpetration: Associations with multiple types of adverse childhood experiences. *Pediatrics*, 125(4), e778–e786. doi:10.1542/peds.2009-0597
- Edens, J.F., Skopp, N.A., & Cahill, M.A. (2008). Psychopathic features moderate the relationship between harsh and inconsistent parental discipline and adolescent antisocial behavior. *Journal of Clinical Child & Adolescent Psychology*, 37(2), 472–476. doi:10.1080/15374410801955938
- FBI (Federal Bureau of Investigation). (2017). Crime in the United States 2016 (Table 20). FBI. Retrieved from <https://ucr.fbi.gov/crime-in-the-u.s/2016/crime-in-the-u.s.-2016/topic-pages/tables/table-20>
- Finkelhor, D., Hotaling, G., Lewis, I.A., & Smith, C. (1990). Sexual abuse in a national survey of adult men and women: Prevalence, characteristics, and risk factors. *Child Abuse & Neglect*, 14, 19–28. doi:10.1016/0145-2134(90)90077-7
- Fix, R.L., Fix, S.T., Wienke Totura, C.M., & Burkhart, B.R. (2017). Disproportionate minority contact among juvenile offenders adjudicated for sexual, violent, and general offending. *Crime and Delinquency*, 63(2), 189–209. doi:10.1177/0011128715626162
- Flight, J.I., & Forth, A.E. (2007). Instrumentally violent youths: The roles of psychopathic traits, empathy, and attachment. *Criminal Justice and Behavior*, 34(6), 739–751. doi:10.1077/0093854807299462
- Forsman, M., Lichtenstein, P., Andershed, H., & Larsson, H. (2008). Genetic effects explain the stability of psychopathic personality from mid- to late adolescence. *Journal of Abnormal Psychology*, 117(3), 606–617. doi:10.1037/0021-843X.117.3.606
- Forth, A.E., Kosson, D., & Hare, R.D. (2003). *The hare psychopathy checklist: Youth version*. New York, NY: Multi-Health Systems.

- Foshee, V.A., Reyes, L.M., Agnew-Brune, C.B., Simon, T.R., Vagi, K.J., Lee, R.D., & Suchindran, C. (2014). The effects of the evidence-based Safe Dates dating abuse prevention program on other youth violence outcomes. *Prevention Science*, 15(6), 907–916. doi:10.1007/s11121-014-0472-4
- Gao, Y., Raine, A., Chan, F., Venables, P.H., & Mednick, S.A. (2010). Early maternal and paternal bonding, childhood physical abuse and adult psychopathic personality. *Psychological Medicine*, 40(6), 1007–1016. doi:10.1017/S0033291709991279
- Gretton, H.M., McBride, M., Hare, R.D., O'Shaughnessy, R., & Kumka, G. (2001). Psychopathy and recidivism in adolescent sex offenders. *Criminal Justice and Behavior*, 28(4), 427–449. doi:10.1177/009385480102800403
- Groth, A.N., Longo, R.E., & McFadin, J.B. (1982). Undetected recidivism among rapists and child molesters. *Crime & Delinquency*, 28, 450–458. doi:10.1177/001112878202800305
- Hall, G.C.N., & Hirschman, R. (1991). Toward a theory of sexual aggression: A quadripartite model. *Journal of Consulting and Clinical Psychology*, 59(5), 662–669. doi:10.1037/0022-006X.59.5.662
- Harris, G.T., Rice, M.E., Hilton, N.Z., Lalumière, M.L., & Quinsey, V.L. (2007). Coercive and precocious sexuality as a fundamental aspect of psychopathy. *Journal of Personality Disorders*, 21(1), 1–27. doi:10.1521/pedi.2007.21.1.1
- Hawes, S.W., Byrd, A.L., Kelley, S.E., Gonzalez, R., Edens, J.F., & Pardini, D.A. (2018). Psychopathic features across development: Assessing longitudinal invariance among Caucasian and African American youths. *Journal of Research in Personality*, 73, 180–188. doi:10.1016/j.jrp.2018.02.003
- Hein, S., Barbot, B., Square, A., Chapman, J., Geib, C.F., & Grigorenko, E.L. (2017). Violent offending among juveniles: A 7-year longitudinal study of recidivism, desistance, and associations with mental health. *Law and Human Behavior*, 41(3), 273–283. doi:10.1037/lhb0000241
- Kahn, R.E., Ermer, E., Salovey, P., & Kiehl, K.A. (2016). Emotional intelligence and callous-unemotional traits in incarcerated adolescents. *Child Psychiatry and Human Development*, 47, 903–917. doi:10.1007/s10578-015-0621-4
- Korponay, C., Pujara, M., Deming, P., Philippi, C., Decety, J., Kosson, D.S., ... Koenigs, M. (2017). Impulsive-antisocial psychopathic traits linked to increased volume and functional connectivity within prefrontal cortex. *Social Cognitive and Affective Neuroscience*, 12(7), 1169–1178. doi:10.1093/scan/nsx042
- Krstic, S., Neumann, C.S., Roy, S., Robertson, C.A., Knight, R.A., & Hare, R.D. (2017). Using latent variable and person-centered approaches to examine the role of psychopathic traits in sex offenders. *Personality Disorders: Theory, Research, and Treatment*, 9(3), 207–216. doi:10.1037/per0000249
- Lang, S., Af Klinteberg, B., & Alm, P.O. (2002). Adult psychopathy and violent behavior in males with early neglect and abuse. *Acta Psychiatrica Scandinavica*, 106(s412), 93–100. doi:10.1034/j.1600-0447.106.s412.20.x
- Lee, S.S. (2018). Multidimensionality of youth psychopathic traits: Validation and future directions. *Journal of Psychopathology and Behavioral Assessment*, 40(1), 86–92. doi:10.1007/s10862-018-9662-x
- Lemaigre, C., Taylor, E.P., & Gittoes, C. (2017). Barriers and facilitators to disclosing sexual abuse in childhood and adolescence: A systematic review. *Child Abuse & Neglect*, 70, 39–52. doi:10.1016/j.chiabu.2017.05.009
- Lynam, D.R., Caspi, A., Moffitt, T.E., Loeber, R., & Stouthamer-Loeber, M. (2007). Longitudinal evidence that psychopathy scores in early adolescence predict adult psychopathy. *Journal of Abnormal Psychology*, 116(1), 155–165. doi:10.1037/0021-843X.116.1.155
- Lynam, D.R., Loeber, R., & Stouthamer-Loeber, M. (2008). The stability of psychopathy from adolescence into adulthood: The search for moderators. *Criminal Justice and Behavior*, 35(2), 228–243. doi:10.1177/0093854807310153
- Lynn, R. (2002). Racial and ethnic differences in psychopathic personality. *Personality and Individual Differences*, 32(2), 273–316. doi:10.1016/S0191-8869(01)00029-0
- Marshall, W.L., & Marshall, L.E. (2000). The origins of sexual offending. *Trauma, Violence, and Abuse*, 1, 250–263. doi:10.1177/152483800001003003
- McCoy, W.K., & Edens, J.F. (2006). Do black and white youths differ in levels of psychopathic traits? A meta-analysis of the psychopathy checklist measures. *Journal of Consulting and Clinical Psychology*, 74(2), 386–392. doi:10.1037/0022-006X.74.2.386

- McCuish, E.C., Cale, J., & Corrado, R.R. (2017). Abuse experiences of family members, child maltreatment, and the development of sex offending among incarcerated adolescent males: Differences between adolescent sex offenders and adolescent non-sex offenders. *International Journal of Offender Therapy and Comparative Criminology*, 61(2), 127–149. doi:10.1177/0306624X15597492
- McCuish, E.C., Lussier, P., & Corrado, R.R. (2015). Examining antisocial behavioural antecedents of juvenile sexual offenders and juvenile non-sexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, 27(4), 414–438. doi:10.1177/1079063213517268
- McKinney, C.M., Harris, T.R., & Caetano, R. (2009). Reliability of self-reported childhood physical abuse by adults and factors predictive of inconsistent reporting. *Violence and Victims*, 24(5), 653–668. doi:10.1891/0886-6708.24.5.653
- Murrie, D.C., Cornell, D.G., & McCoy, W.K. (2005). Psychopathy, conduct disorder, and stigma: does diagnostic labeling influence juvenile probation officer recommendations? *Law and Human Behavior*, 29(3), 323.
- O'Connell, D., & Marcus, D.K. (2016). Psychopathic personality traits predict positive attitudes toward sexually predatory behaviours in college men and women. *Personality and Individual Differences*, 94, 372–376. doi:10.1016/j.paid.2016.02.011
- Parks, G.A., & Bard, D.E. (2006). Risk factors for adolescent sex offender recidivism: Evaluation of predictive factors and comparison of three groups based upon victim type. *Sexual Abuse: A Journal of Research and Treatment*, 18(4), 319–342. doi:10.1007/s11194-006-9028-x
- Porter, S. (1996). Without conscience or without active conscience? The etiology of psychopathy revisited. *Aggression and Violent Behavior*, 1(2), 179–189. doi:10.1016/1359-1789(95)00010-0
- Porter, S., Demetrio, S., & ten Brinke, L. (2010). Sexual psychopath: Current understanding and future challenges. In A. Schlink (Ed.), *The sexual predator – Volume IV* (pp. 13–113–12). Kingston, NJ: Civic Research Institute.
- Poythress, N.G., Skeem, J.L., & Lilienfeld, S.O. (2006). Associations among early abuse, dissociation, and psychopathy in an offender sample. *Journal of Abnormal Psychology*, 115(2), 288–297. doi:10.1037/0021-843X.115.2.288
- Puzzanchera, C. (2014). *Juvenile arrests 2012. Juvenile Offenders and Victims: National Report Series* [PDF]. Retrieved from <http://www.ncjj.org/pdf/Juvenile%20Arrests%20Bulletins/248513-1.pdf>
- Ridder, K.A., & Kosson, D.S. (2018). Investigating the components of psychopathic traits in youth offenders. *Journal of Psychopathology and Behavioral Assessment*, 40(1), 60–68. doi:10.1007/s10862-018-9654-x
- Salekin, R.T. (2016). Psychopathy in childhood: Why should we care about grandiose–manipulative and daring–impulsive traits? *The British Journal of Psychiatry*, 209(3), 189–191. doi:10.1192/bjp.bp.115.179051
- Schmidt, F., Campbell, M.A., & Houlding, C. (2011). Comparative analyses of the YLS/CMI, SAVRY, and PCL: YV in adolescent offenders: A 10-year follow-up into adulthood. *Youth Violence and Juvenile Justice*, 9(1), 23–42. doi:10.1177/1541204010371793
- Seto, M.C., & Lalumière, M.L. (2010). What is so special about male adolescent sexual offending? A review and test of explanations through meta-analysis. *Psychological Bulletin*, 136(4), 526–575. doi:10.1037/a0019700
- Sitney, M.H., Caldwell, B. M., & Caldwell, M.F. (2016). The longitudinal relationship between African American status, psychopathic traits, and violent recidivism in juvenile offenders. *Criminal Justice and Behavior*, 43(9), 1190–1203. doi:10.1177/0093854816645619
- Skeem, J.L., & Cauffman, E. (2003). Views of the downward extension: Comparing the youth version of the Psychopathy Checklist with the Youth Psychopathic Traits Inventory. *Behavioral Sciences & the Law*, 21, 737–770. doi:10.1002/bsl.563
- Storey, J.E., Hart, S.D., Cooke, D.J., & Michie, C. (2016). Psychometric properties of the Hare Psychopathy Checklist-Revised (PCL-R) in a representative sample of Canadian federal offenders. *Law and Human Behavior*, 40(2), 136. doi:10.1037/lhb0000174
- Tibbs, C.D., Layne, D., Bryant, B., Carr, M., Ruhe, M., Keitt, S., & Gross, J. (2017). Youth violence prevention: Local public health approach. *Journal of Public Health Management and Practice*, 23(6), 641–643. doi:10.1097/PHH.0000000000000687
- Tremblay, R.E. (2006). Prevention of youth violence: Why not start at the beginning? *Journal of Abnormal Child Psychology*, 34(4), 480–486. doi:10.1007/s10802-006-9038-7

- Tsang, S., Piquero, A.R., & Cauffman, E. (2014). An examination of the Psychopathy Checklist: Youth Version (PCL: YV) among male adolescent offenders: An item response theory analysis. *Psychological Assessment*, 26(4), 1333–1346. doi:10.1037/a0037500
- van Geel, M., Goemans, A., Toprak, F., & Vedder, P. (2017). Which personality traits are related to traditional bullying and cyberbullying? A study with the Big Five, Dark Triad and sadism. *Personality and Individual Differences*, 106, 231–235. doi:10.1016/j.paid.2016.10.063
- Vidal, S., & Skeem, J.L. (2007). Effect of psychopathy, abuse, and ethnicity on juvenile probation officers' decision-making and supervision strategies. *Law and Human Behavior*, 31(5), 479–498. doi:10.1007/s10979-006-9077-1
- Viljoen, J.L., Elkovitch, N., Scalora, M.J., & Ullman, D. (2009). Assessment of reoffense risk in adolescents who have committed sexual offenses: Predictive validity of the ERASOR, PCL:YV, YLS/CMI, and Static-99. *Criminal Justice and Behavior*, 36(10), 981–1000. doi:10.1177/0093854809340991
- Vincent, G.M., Odgers, C.L., McCormick, A.V., & Corrado, R.R. (2008). The PCL: YV and recidivism in male and female juveniles: A follow-up into young adulthood. *International Journal of Law and Psychiatry*, 31(3), 287–296. doi:10.1066/j.ijlp.2008.04.012
- Wanklyn, S.G., Ward, A.K., Cormier, N.S., Day, D.M., & Newman, J.E. (2012). Can we distinguish juvenile violent sex offenders, violent non-sex offenders, and versatile violent sex offenders based on childhood risk factors? *Journal of Interpersonal Violence*, 27(11), 2128–2143. doi:10.1177/0886260511432153
- Ward, T., & Beech, A. (2006). An integrated theory of sexual offending. *Aggression and Violent Behavior*, 11(1), 44–63. doi:10.1016/j.avb.2005.05.002
- Watkins, A.M., & Taylor, T.J. (2016). The prevalence, predictors, and criminogenic effect of joining a gang among urban, suburban, and rural youth. *Journal of Criminal Justice*, 47, 133–142. doi:10.1016/j.jcrimjus.2016.09.001
- Watts, A.L., Bowes, S.M., Latzman, R.D., & Lilienfeld, S. (2017). Psychopathic traits predict harsh attitudes towards rape victims among undergraduates. *Personality and Individual Differences*, 106, 1–5. doi:10.1016/j.paid.2016.10.022
- Watts, S.J., & McNulty, T.L. (2013). Childhood abuse and criminal behavior: Testing a general strain theory model. *Journal of Interpersonal Violence*, 28(15), 3023–3040. doi:10.1177/088626051388696
- Weiler, B.L., & Widom, C.S. (1996). Psychopathy and violent behaviour in abused and neglected young adults. *Criminal Behaviour and Mental Health*, 6(3), 253–271. doi:10.1002/cbm.99
- Wekerle, C., Leung, E., Wall, A.M., MacMillan, H., Boyle, M., Trocme, N., & Waechter, R. (2009). The contribution of childhood emotional abuse to teen dating violence among child protective services-involved youth. *Child Abuse & Neglect*, 33, 45–58. doi:10.1016/j.chiabu.2008.12.006
- Wincentak, K., Connolly, J., & Card, N. (2017). Teen dating violence: A meta-analytic review of prevalence rates. *Psychology of Violence*, 7(2), 224. doi:10.1037/a0040194
- Wong, S.C., Gordon, A., Gu, D., Lewis, K., & Olver, M.E. (2012). The effectiveness of violence reduction treatment for psychopathic offenders: Empirical evidence and a treatment model. *International Journal of Forensic Mental Health*, 11(4), 336–349. doi:10.1080/14999013.2012.746760
- Woodworth, M., Freimuth, T., Hutton, E.L., Carpenter, T., Agar, A.D., & Logan, M. (2013). High-risk sexual offenders: An examination of sexual fantasy, sexual paraphilia, psychopathy, and offence characteristics. *International Journal of Law and Psychiatry*, 36(2), 144–156. doi:10.1016/j.ijlp.2013.01.007
- Woodworth, M., & Porter, S. (2002). In cold blood: Characteristics of criminal homicides as a function of psychopathy. *Journal of Abnormal Psychology*, 111(3), 436–445. doi:10.1037/0021-843X.111.3.436
- Worling, J.R., & Långström, N. (2006). Risk of sexual recidivism in adolescents who offend sexually: Correlates and assessment. In H. Barbaree & W. Marshall (Eds.), *The juvenile sex offender* (2nd ed., pp. 219–247). New York, NY: Plenum.
- Ybarra, M.L., & Thompson, R.E. (2018). Predicting the emergence of sexual violence in adolescence. *Prevention Science*, 19(4), 403–415. doi:10.1007/s11121-017-0810-4
- Zurbriggen, E.L., Gobin, R.L., & Freyd, J.J. (2010). Childhood emotional abuse predicts late adolescent sexual aggression perpetration and victimization. *Journal of Aggression, Maltreatment, and Trauma*, 19(2), 204–223. doi:10.1080/10926770903539631