

## Characteristics of Sexual Homicides Committed by Psychopathic and Nonpsychopathic Offenders

Stephen Porter,<sup>1,3</sup> Michael Woodworth,<sup>1</sup> Jeff Earle,<sup>2</sup>  
Jeff Drugge,<sup>2</sup> and Douglas Boer<sup>2</sup>

---

*In this study, the relationship between psychopathy and the perpetration of sexual homicide was investigated. The official file descriptions of sexual homicides committed by 18 psychopathic and 20 nonpsychopathic Canadian offenders were coded (by coders unaware of Psychopathy Checklist—Revised [PCL—R] scores) for characteristics of the victim, victim/perpetrator relationship, and evidence of gratuitous and sadistic violent behavior. Results indicated that most (84.7%) of the sexual murderers scored in the moderate to high range on the PCL—R. The majority of victims (66.67%) were female strangers, with no apparent influence of psychopathy on victim choice. Homicides committed by psychopathic offenders (using a PCL—R cut-off of 30) contained a significantly higher level of both gratuitous and sadistic violence than nonpsychopathic offenders. Most (82.4%) of the psychopaths exhibited some degree of sadistic behavior in their homicides compared to 52.6% of the nonpsychopaths. Implications for homicide investigations are discussed.*

---

**KEY WORDS:** psychopathy; sexual homicide; sadistic violence.

A sexual homicide is one that includes sexual activity before, during, or after the commission of the crime. For more than a century, this phenomenon has been addressed in the psychiatric and psychological literatures. Its first major study was undertaken by Krafft-Ebing (1965) in his classic *Psychopathia Sexualis*. Krafft-Ebing (who coined the term “sadism”) discussed fatal and nonfatal sadism and referred to a sadistic homicide as “lust murder.” He considered sadism to be the combination of lust and cruelty, during which the perpetrator achieved sexual pleasure from another person’s physical suffering. According to Krafft-Ebing, many individuals who had sadistic fantasies (even homicidal fantasies) refrained from acting upon such thoughts because of their moral beliefs, while others had no such ethical inhibitions.

<sup>1</sup>Department of Psychology, Dalhousie University, Halifax, Nova Scotia, Canada.

<sup>2</sup>Correctional Service of Canada.

<sup>3</sup>To whom all correspondence should be addressed at Department of Psychology, Dalhousie University, Halifax, Nova Scotia B3H 4J1, Canada; e-mail: sbporter@dal.ca.

A century later, despite the high level of clinical and investigative interest surrounding sexual homicide (e.g., Firestone, Bradford, Greenberg, & Larose, 1998; Meloy, 2000), there has been little empirical research on the phenomenon. Because most official crime databases do not document the specific manner in which homicides are committed (e.g., Arrigo & Purcell, 2001), even the prevalence of sexual homicide is unclear. Estimates range from 1% of all homicides in the United States (Meloy, 2000) to 4% of homicides in Canada (Roberts & Grossman, 1993). However, because few researchers have had access to detailed descriptions of homicides, such estimates are likely to be conservative. For example, in jurisdictions such as Canada only the most serious act within a single criminal incident may lead to a conviction. Most homicides preceded by a sexual assault officially would be recorded as first-degree murder only. A careful examination of crime scene and self-report information could reveal a substantially higher frequency of sexual homicide than is currently recognized.

In this study, we examined the prevalence of sexual homicides within a large sample of Canadian homicides, characteristics of the victim, victim/perpetrator relationship, and whether the presence of psychopathic traits would contribute to the specific types of violence evidenced in the context of a sexual homicide.

### **CHARACTERISTICS OF VIOLENCE COMMITTED BY PSYCHOPATHIC OFFENDERS**

Psychopathy, as measured by the well-validated Psychopathy Checklist—Revised (PCL—R; Hare, 1991), is a personality disorder associated with impulsivity, remorselessness, manipulation, lack of empathy, thrill-seeking, and a callous interpersonal style. Although no research has targeted characteristics of sexual homicides by psychopaths, studies indicate that these offenders consistently commit more violence (e.g., Hare, 1993; Harpur & Hare, 1994; Porter, Birt, & Boer, 2001). Further, their violence is often more heinous or “cold-blooded” than violence committed by other offenders (e.g., Woodworth & Porter, 2002). Williamson, Hare, and Wong (1987) found that psychopathic offenders were more often motivated by material gain or revenge and less likely to have been in a state of heightened emotional arousal at the time of the violent act than nonpsychopathic offenders. Cornell et al. (1996) found that psychopathic offenders were more likely than other offenders to have committed instrumental violence at some point in their criminal history. In the first study to focus on the relationship between psychopathy and murder ( $N = 125$ ), Woodworth and Porter (2002) found that 93.3% of those perpetrated by psychopaths were primarily instrumental (planned, unemotional, and motivated by an external goal) compared to 48.4% of the homicides by nonpsychopathic offenders. Huss and Langhinrichsen-Rohling (2000) concluded that psychopathic individuals perpetrated the most severe, gratuitous acts of physical abuse against their partners. Further, psychopathic offenders show a profound lack of empathy, which could facilitate the perpetration of more extreme violence against the victim. In addition, thrill-seeking appears to be an important motivation for criminal behavior (including sexual offending) in psychopathic offenders (e.g., Hare, 1996). Excessive or gratuitous violence during

a violent crime could serve to satiate such a thrill-seeking motivation (e.g., Porter et al., 2000; Porter, Campbell, Woodworth, & Birt, 2001). For example, torture during a sexual assault could be motivated by thrill-seeking/excitement rather than sexual arousal alone.

## PSYCHOPATHY AND SADISTIC TRAITS

The term sadism has been used to describe a diverse set of behaviors, including the derivation of both sexual and nonsexual pleasure through inflicting physical or emotional pain on another person. In the clinical literature, sadistic traits have been long associated with psychopathy (e.g., Meloy, 2000). Recently, this link has been examined empirically (Hare, Cooke, & Hart, 1999; Holt, Meloy, & Strack, 1999; Meloy, 2000). Holt et al. (1999) investigated the prevalence of sadistic traits (using the Millon Clinical Multiaxial Inventory-II and the Personality Disorder Examination items for sadistic personality disorder) in 41 violent psychopathic and nonpsychopathic inmates at a maximum-security prison. Psychopaths were found to be significantly more sadistic than nonpsychopaths. Violent and sexually violent groups did not differ in the level of sadistic personality traits suggesting that the traits were generalized and not tied specifically to sexual pleasure. However, there also may be an association between psychopathy and sexual sadism. Barbaree, Seto, Serin, Amos, and Preston (1994) found that higher PCL—R scores were associated with sadistic sexual arousal in a sample of rapists (also see Rice, Harris, & Quinsey, 1990). Collectively, these findings suggest that psychopaths may be more likely than other offenders to derive pleasure from both the nonsexual and sexual suffering of others. We predicted that this pattern would be evidenced in the sexual homicides committed by psychopathic offenders.

## PSYCHOPATHY AND SEXUAL HOMICIDE

Is there a link between psychopathy and sexual homicide specifically? There is preliminary evidence that sexual homicide offenders have elevated levels of psychopathic traits relative to other offenders. Firestone et al. (1998) compared 48 sexual homicide offenders and a group of incest offenders who had been assessed in a Canadian sexual behavior clinic. They found that the homicide offenders had significantly higher PCL—R scores ( $M = 26.58$ ) than those of the incest offenders ( $M = 18.71$ ). In particular, the homicide offenders had very high mean Factor 1 scores (affective/interpersonal features), at approximately the 85th percentile for male offenders. Meloy (2000) reported that about two thirds of the sexual homicide offenders in his continuing study scored in the moderate-high range on the PCL—R. Similarly, Myers and Blashfield (1997) found that 11 of 13 adolescent sexual homicide offenders in their sample showed a moderate-high level of psychopathic traits. Langevin, Ben-Aron, Wright, Marchese, and Handy (1988) compared 13 sexual homicide offenders, 13 nonsexual homicide offenders, and 13 (nonhomicidal) sexually violent offenders on a large number of psychological characteristics. Results

indicated that the sexual homicide offenders had victimized strangers more often, were more likely to be diagnosed with antisocial personality disorder, and exhibited more deviant phallometric responses to sexually sadistic stimuli than the other groups.

To date, no research on sexual homicide offenders has moved beyond such psychological testing results to actual crime scene behaviors. The present study was the first to examine whether psychopathic and nonpsychopathic offenders who commit sexual homicide exhibit behavioral differences in the context of their homicides. Based on the preceding review, it was predicted that psychopathic murderers would have committed proportionately more sexual homicides than nonpsychopathic murderers. We also focused on the relationship between psychopathy and the types of violence displayed during the commission of sexual homicide. In particular, we were interested in testing the hypothesis that psychopathic offenders would perpetrate a higher level of gratuitous and sadistic violence during the offence. Given the thrill-seeking motivation associated with much crime by psychopathic offenders, we predicted that psychopathic sexual murderers would have engaged in a higher level of gratuitous (“unnecessary,” excessive violence) violent behavior than their counterparts. That is, it was predicted that many psychopathic offenders would take advantage of the situation and perpetrate as much violence as possible in this context. Second, we expected that violence by psychopathic offenders would be more likely to have a sadistic component in which the offender derived sexual or nonsexual enjoyment from inducing suffering on the victim.

## METHOD

### Sample

The sample of sexual homicide offenders was derived from a group of 125 male offenders who had committed homicide (out of approximately 800 incarcerated offenders in the two institutions examined), described in Woodworth and Porter (2002). The offenders were incarcerated in one of two Canadian federal prisons (Mountain Institution in British Columbia or Springhill Institution in Nova Scotia). Each is a medium-security prison housing approximately 400 inmates. The offenders had been convicted of first degree murder, second-degree murder, manslaughter, or attempted murder.<sup>4</sup> By obtaining data from two institutions, we hoped to examine a relatively large sample (of this rare crime) and maximize the generalizability of the findings. Of the original sample, 38/125 (30.4%) homicide offenders had exhibited sexual behavior in the context of their homicide. The mean age of the offenders at the time of data collection was 41.42 years ( $SD = 8.91$ ), with a range of 29–67 years. Their mean age at the time of the offense was 25.70 ( $SD = 5.98$ ), with a range of 17–40 years.

<sup>4</sup>We included attempted murder as in all five of these cases there was clear evidence that the offender believed that the victim was deceased. However, we examined the effect of the inclusion of these data statistically, as reported later.

## Materials

### *PCL—R (Hare, 1991)*

Psychopathy, as measured by the PCL—R, is characterized by 20 criteria relating to affective/interpersonal traits (e.g., glibness, superficial charm, pathological lying, lack of remorse) (Factor 1), and aspects of an impulsive and antisocial lifestyle (Factor 2). Because there is an unresolved debate over whether psychopathy represents a discrete or a continuous variable (cf. Harris, Rice, & Quinsey, 1994; Hart & Hare, 1997), both scoring approaches were utilized here. PCL—R scores were characterized as falling within (30–40) or below (0–29) the diagnostic range for psychopathy. In the Canadian correctional system, risk assessments typically include an evaluation of psychopathy by a psychologist who has been well trained in the administration of the instrument. A file search yielded all available PCL—R scores as reported in the official risk assessment on each offender (conducted as part of the intake assessment or assessment for parole purposes) (76.8% of the cases). PCL—R assessments had been conducted during the current incarceration period. For cases in which a PCL—R had not been conducted, a doctoral candidate and one senior undergraduate student trained in administering the PCL—R reviewed all available file information and scored the remaining 23.2% of cases. These raters were kept blind to the hypotheses of the study. An interrater reliability check was conducted on the original PCL—R scores using 21 randomly selected cases. A second reliability check was conducted on an additional 20 randomly selected cases in which the rater was kept blind to the description of the homicide.

## Procedure

### *Coding Scheme*

In order to be classified as a sexual homicide, there had to be physical evidence of sexual activity with the victim before, during, or after the homicide, according to police, court, forensic, witness, and/or self-report evidence. The homicide information was coded directly from the Criminal Profile Reports (CPR) and the Psychological Assessment Report (PAR), considered to be the most standardized and informative documents relating to the offender's violence history. The CPR (written by the offender's case management officer) is based on the official police, forensic/autopsy, prosecutor, and court reports. Within the CPR, an official detailed description (typically one to two pages) is provided of the offender's violent offences. Generally, the offender's version of the crime is documented in both the CPR and the PAR.

*Gratuitous violence* was defined as excessive violence that went beyond the level that would be necessary to accomplish the homicide and/or caused the victim unnecessary pain and suffering. The main criteria for gratuitous violence were evidence of torture/beatings, mutilation or "overkill," and use of multiple weapons from the crime scene. Such details were derived from police reports, court reports, autopsy reports, and self-report and are consistently reported in the CPR. Level of gratuitous violence was coded on a four-point scale: (0) no evidence of gratuitous violence; (1) low level of gratuitous violence (reports provided evidence of brief single incident of

excessive violence occurring in a very short period (e.g., a superficial cut to the victim with professional inference of nonfatal intent)); (2) moderate level of gratuitous violence (reports provided evidence of excessive violence with two or more of the above criteria being present over a brief period of time or one of the above criteria involving more than a single incident); (3) major level of gratuitous violence (reports provided evidence that gratuitous violence was a major aspect of the crime; evidence for excessive violence with multiple incidents during a drawn out homicide).

The possible relationship between psychopathy and *sadistic* behavior also was examined. The presence of sadistic violence was indicated by evidence that the offender obtained enjoyment/pleasure from the homicidal act. Such a determination was made from self-report information from the offender or evidence from the crime scene that he derived enjoyment from the violence (therefore, this was a conservative definition). For this variable, there must have been clear evidence that the offender derived enjoyment *from engaging in violence* (and not from a sexual assault alone). For some cases of gratuitous violence (e.g., the victim was stabbed numerous times with inference of nonfatal intent), it is not possible to determine whether the motive for the excessive violence was pleasure seeking or to another affective state such as rage. Evidence of sadistic behavior (e.g., pre-mortem sexual torture/mutilation noted in the autopsy and/or court reports) at the crime scene was coded as "some evidence" of sadistic behavior. Interview information provided by the offender indicating that he experienced enjoyment/thrill/arousal from the violence was coded as "clear evidence." Sadistic behavior was rated on a three-point scale: (1) no evidence; (2) some evidence (any evidence from the crime scene); (3) clear evidence (self-reported enjoyment from excessive violence alone or in combination with crime scene evidence).

The major independent variable of interest was the murderer's score on the PCL—R (using a diagnostic cut-off of 30), while the major dependent variables of interest were evidence for sexual violence, the presence of gratuitous violence, and the presence of sadistic violence. To circumvent the potential problem of circularity/contamination, PCL—R scores were coded without knowledge of the homicide details, while the homicides were coded without knowledge of the PCL—R ratings.

## RESULTS

### Preliminary Analyses

#### *Reliability of Coding Scheme and PCL—R Scores*

An intercoder reliability check was conducted for gratuitous and sadistic behavior in the original sample of offenders. A second trained coder was kept blind to the PCL—R score of each offender. The check (using 21 randomly selected files) indicated that reliability was high for coding presence of gratuitous violence,  $r(21) = .95$ ,  $p < .0001$  (and no difference in the means of Raters 1 and 2;  $t(21) = .00$ ,  $p > .05$ ), and absolute (agreement) for the presence of sadistic violence,  $r(12) = 1.00$ ,  $p < .0001$ .

From the original sample, interrater reliability of the PCL—R assessments for the entire sample was examined in two ways. First, twenty-one offenders were randomly selected for dual coding. In these cases, all file information available on

each offender was made available to a coder kept blind to the original PCL—R score. This check ensured that the original PCL—R scores were valid. For a second reliability check, 33 cases were randomly selected for dual coding. However, for these cases, all details pertaining to the current homicide were removed prior to coding. The rationale for this second test of reliability was that coding in the absence of the homicide description would circumvent the possibility of circularity in scoring the PCL—Rs. A preliminary interrater reliability check was conducted on the PCL—R scores using the 21 files for dual coding. Intraclass correlation coefficients (ICC) were examined to determine the level of interrater reliability for continuous scores. Interrater reliability was high/acceptable for PCL—R total, Factor 1, and Factor 2 scores (ICC = .92, .81, .95, respectively,  $ps < .001$ ). Similarly, there was an acceptable level of agreement between Raters 1 and 2 for classifying the offenders as psychopaths or nonpsychopaths,  $\kappa = .79$ ,  $p < .001$  (common guidelines for acceptable  $\kappa$  scores are  $< .40$  = poor;  $.40$ – $.59$  = fair;  $.60$ – $.74$  = good; and  $\geq .75$  = excellent; e.g., Fleiss, 1981; Cicchetti & Sparrow, 1981).

Like the initial reliability check, interrater reliability on cases in which the description of the offense was removed prior to coding was high/acceptable for PCL—R Total, Factor 1, and Factor 2 (.97, .95, .94, respectively,  $ps < .001$ ).

### Descriptive Statistics

The legal description of the homicide was available for 37/38 cases. Overall, 17 (44.7%) convictions were for first degree murder, 13 (34.2%) of convictions were for second degree murder, 5 (13.2%) convictions were for attempted murder, and 2 (5.3%) convictions were for manslaughter. The victim's average age at time of death (based on the victims for whom there was a specific age at time of death listed in file information) was 28.24 years old ( $SD = 21.62$ ; range of 3–92 years). The general age of the victim was reported in 32 cases revealing that four (12.5%) were children (0–12 years old), 10 (31.3%) were teenagers (12–19 years old), 14 (43.8%) were adults (20–64 years old), and 4 (12.5%) were seniors (65 and over). Of the victims, 35/38 (92.1%) were female. Overall, 24/36 (66.67%) victims for which the relationship was known were strangers. Following is a break-down of the various perpetrator/victim relationships: female stranger (60.5%), friend/acquaintance (29%); spouse/ex-spouse (2.6%); and male stranger (2.6%). Results indicated that offender age at the time of the homicide did not differ significantly between psychopaths and nonpsychopaths,  $t(35) = 1.17$ ,  $p > .05$ .

### Sexual Homicides by Psychopaths and Nonpsychopaths

The average PCL—R total score was 26.5 ( $SD = 6.47$ ; range 12–35). Using a cut-off of 30, 20 (52.6%) offenders were classified as nonpsychopathic and 18 (47.4%) were psychopathic (scoring in the high range). Overall, 32/38 (84.2%) offenders scored in the moderate (20–29) or high range on the PCL—R. Interestingly, in the original sample of 125 homicide offenders, 39.2% and 27.2% of offenders had scored in the moderate and high range, respectively (66.4% of the total), and had a mean PCL—R score of 22.27.

From the original sample of 125 homicides, 54% of the psychopathic offenders had committed a sexual homicide compared to 22.5% of the nonpsychopathic homicide offenders. Psychopaths were significantly more likely to have committed sexual homicide,  $\chi^2(1) = 11.55, p < .001$ .

### Gratuitous and Sadistic Violence as a Function of Psychopathy

To examine whether the 38 psychopathic and nonpsychopathic offenders had perpetrated different levels of gratuitous and sadistic violence, a multivariate analysis of variance (MANOVA) was conducted, with psychopathy as a dichotomous independent variable and ratings for degree of sadistic and gratuitous violence as dependent variables. The main analysis yielded a significant finding,  $F(2, 33) = 7.56, p < .01$ .<sup>5</sup> Follow-up univariate analyses indicated that psychopathic offenders had committed significantly more ( $M = 2.76, SD = .44$  vs.  $M = 2.00, SD = .82$ ) gratuitous violence ( $F(1, 34) = 11.85, p < .01$ ),  $\eta^2 = .26$ , and more ( $M = 2.12, SD = .70$  vs.  $M = 1.57, SD = .61$ ) sadistic violence ( $F(1, 34) = 6.15, p < .05$ ),  $\eta^2 = .15$ , than nonpsychopathic offenders. Overall, there was evidence for the use of sadistic violence by 82.4% of psychopaths and 52.6% of nonpsychopaths in the sample. The correlation between PCL—R total score and level of gratuitous violence approached significance  $r(38) = .31, p = .059$ . The relations between Factor 1 and gratuitous violence ( $r(38) = .30$ ), and Factor 2 scores and gratuitous violence ( $r(38) = .23$ ) also only approached significance ( $p < .10$ ). The correlation between PCL—R total score and level of sadistic violence in the homicide was positive and significant  $r(36) = .35, p < .05$ . The correlation between Factor 1 and sadistic violence also was significant ( $r(36) = .34, p < .05$ ) unlike the correlation between Factor 2 and sadistic violence ( $r(36) = .20, p > .05$ ). The correlation between gratuitous and sadistic violence ratings was moderate,  $r(36) = .33, p < .05$ , indicating that they were related but distinct variables.

As a final analysis, the nonpsychopaths in the sample were divided dichotomously as low (0–19) and high scorers (20–29). To examine the effect of psychopathic traits on violent behavior within the nonpsychopathic offenders, the MANOVA was repeated. Again, the main analysis yielded a significant finding,  $F(2, 16) = 7.56, p < .01$ . Follow-up univariate analyses indicated that high scorers had committed significantly more ( $M = 2.76, SD = .44$  vs.  $M = 2.00, SD = .82$ ) gratuitous violence ( $F(1, 34) = 11.85, p < .01$ ),  $\eta^2 = .26$ , and more ( $M = 2.12, SD = .70$  vs.  $M = 1.57, SD = .61$ ) sadistic violence ( $F(1, 34) = 6.15, p < .05$ ),  $\eta^2 = .15$ , than nonpsychopathic offenders.

## DISCUSSION

In recent years, the criminal psychopath has been the focus of numerous behavioral studies. However, few studies have examined the issue of whether psychopaths

<sup>5</sup>The data were reanalyzed excluding the five attempted murder cases. The major MANOVA result was nearly identical,  $F(2, 29) = 8.74, p < .01$ , as were both significant follow-up univariate analyses.

engage in distinctive types of violent behavior relative to their counterparts. Our recent work demonstrated that psychopathic murderers are more likely to commit goal-driven, instrumental (as opposed to hostile, reactive) homicides (Porter, Campbell, et al., 2001; Woodworth & Porter, 2002). The this study focused specifically on sexual homicide, still a poorly understood phenomenon from a psychological perspective (e.g. Meloy, 2000). There has been some evidence to indicate that psychopaths commit more diverse and severe forms of sexual behavior (e.g., Porter, Campbell, et al., 2001; Porter et al., 2000), including sadistic violence (e.g., Firestone et al., 1998). One main finding from examining our original sample was that sexual homicides may be more common than previously estimated (about 1–4%) at 30.4% of the total homicides. Our access to detailed crime and self-report information pertaining to the homicides revealed something closer to the true prevalence of the phenomenon. On the other hand, one of the two prison samples had a high base rate of sexual offenders in the population that could have partially contributed to the high prevalence witnessed here. Secondly, from a diverse sample of homicide offenders we found that psychopaths were (proportionately) more likely to have committed *sexual* homicides than their counterparts. Specifically, whereas psychopaths comprised 27.2% of the original sample of homicide offenders, they accounted for nearly half (47.4%) of the sexual homicide offenders. Further, 84.7% of the sexual murderers scored in the moderate to high range, drawing a link between the features of the disorder and the act of sexual murder.

For the first time, we demonstrated that not only are psychopathic offenders disproportionately more likely to engage in sexual homicide, but, when they do, they use significantly more gratuitous and sadistic violence. In fact, both the total and Factor 1 scores on the PCL—R were positively associated with sadistic violence, in accordance with the theory that psychopathy and sadism are closely related disorders (Hare et al., 1999). However, the pathological personality features (Factor 1) were most closely related to the sadistic behavior by the psychopath. In our view, it is likely that a profound lack of affect/empathy combined with a thrill-seeking propensity could promote such behavior during a sexual homicide. More to the point, in the absence of inhibitions relating to empathy or remorse and in the presence of a thrill-seeking motive, the psychopath may try to optimize their pleasure and the damage inflicted during the homicidal act. Certainly, the psychopathic offender would not be constrained by emotional inhibitory states that could limit the degree of violence perpetrated by other homicide offenders (who presumably have different pathological conditions promoting their offending). On the other hand, there could be a true relation between psychopathy and sadistic sexual arousal leading to this pattern. For example, Firestone et al. (1998) reported that 75% of all sexual homicide offenders in their sample qualified for a DSM diagnosis of sexual sadism. This association has applied relevance because co-morbid psychopathy and sadistic arousal contributes to the prediction of faster recidivism for sexual offenders (Rice & Harris, 1997). Although the present data indicated that the nonpsychopaths often (52.6%) commit sadistic violence in the context of a sexual homicide, it does not appear that they have a *preference* for this behavior as with the psychopaths, almost all of whom (82.4%) exhibited some type of sadistic behavior. It should be noted that the effect sizes for the difference between the psychopathic and nonpsychopathic groups on

the violence measures, while significant, were not large. Further, the correlational analysis on continuous PCL—R scores and the analysis on the nonpsychopaths alone yielded similar findings to the analysis on the psychopath/nonpsychopath dichotomy. Together, these findings suggest that psychopathic traits are relevant to understanding violence in sexual homicide generally, not only in psychopathic offenders.

The findings of this study may have implications for the investigation and management of homicide offenders. Given the wealth of information now available on the behavioral patterns seen in psychopaths (e.g., Porter, Birt, et al., 2001; Woodworth & Porter, 2002), the homicide investigator could potentially reduce the field of suspects in difficult investigations (e.g., Woodworth & Porter, 1999). In terms of planning an intervention in the institutional setting, it seems clear that a consideration of psychopathy and the type of violence committed is necessary. For example, anger management might be a waste of time with psychopathic sexual murderers since nearly all of them engage in sadistic violence probably related to thrill-seeking and a lack of empathy rather than anger and rage (see Porter, Campbell et al., 2001; Woodworth & Porter, 2002). Almost half of the nonpsychopathic sexual offenders did not commit sadistic violence during their homicide suggesting a different motivation and different intervention approaches. Future research should attempt to differentiate the nonpsychopathic offenders who do or do not engage in sadistic violence during their murder, an issue of theoretical and applied importance.

The main strengths of this study included an investigation of a relatively large sample of sexual homicide offenders who have perpetrated a rare form of criminal behavior, and access to detailed descriptions of the homicides. In addition, this study was one of the first to clearly differentiate and code for general gratuitous and specific sadistic violence in the context of homicide. We determined that particular patterns of sexual homicide were more closely associated with certain pathological personality characteristics of psychopathic and nonpsychopathic offenders. These data add to the current scientific understanding of the motivations behind, and characteristics of, this aberrant form of criminal behavior.

### ACKNOWLEDGMENTS

We express our sincere appreciation to the Correctional Service of Canada for allowing and helping us to collect the data for this study. Thanks also to Peyton Harris, Mary Ann Campbell, Naomi Doucette, and Kris Peace for their assistance in coding the data.

This research was graciously supported by grants from the Social Science and Humanities Research Council of Canada (SSHRC) and the American Psychology-Law Society (AP-LS).

### REFERENCES

- Arrigo, B., & Purcell, C. E. (2001). Explaining paraphilias and lust murder: Toward an integrated model. *International Journal of Offender Therapy and Comparative Criminology, 45*, 6–31.

- Barbaree, H. E., Seto, M. E., Serin, R. C., Amos, N. L., & Preston, D. (1994). Comparisons between sexual and nonsexual rapist subtypes: Sexual arousal to rape, offense precursors, and offense characteristics. *Criminal Justice and Behavior, 21*, 95–114.
- Brown, S. L., & Forth, A. E. (1997). Psychopathy and sexual assault: Static risk factors, emotional precursors, and rapist subtypes. *Journal of Consulting and Clinical Psychology, 5*, 848–857.
- Burgess, A. W., Hartman, C. R., Ressler, R. K., Douglas, J. E., & McCormack, A. (1986). sexual homicide: A motivational model. *Journal of Interpersonal Violence, 1*, 251–272.
- Cicchetti, D. V., & Sparrow, S. S. (1981). Developing criteria for establishing the interrater reliability of specific items in a given inventory. *American Journal of Mental Deficiency, 86*, 127–137.
- 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*, 783–790.
- Firestone, P., Bradford, J. M., Greenberg, D. M., & Larose, M. R. (1998). Homicidal sex offenders: Psychological, phallometric, and diagnostic features. *Journal of the American Academy of Psychology and Law, 26*, 537–552.
- Fleiss, J. L. (1981). *Statistical methods for rates and proportions* (2nd ed.). New York: Wiley.
- Hare, R. D. (1991). *The Hare Psychopathy Checklist-Revised*. Toronto, Ontario: Multi-Health Systems, Inc.
- Hare, R. D. (1993). *Without Conscience: The Disturbing World of the Psychopaths among Us*. New York: Simon & Schuster.
- Hare, R. D. (1996). Psychopathy: A clinical construct whose time has come. *Criminal Justice and Behavior, 23*, 25–54.
- Hare, R. D., Cooke, D. J., & Hart, S. D. (1999). Psychopathy and sadistic personality disorder. In T. Millon, P. H. Blanney, & R. D. Davies (Eds.), *Oxford textbook of psychopathology* (pp. 555–584). New York: Oxford University.
- Harpur, T. J., & Hare, R. D. (1994). The assessment of psychopathy as a function of age. *Journal of Abnormal Psychology, 103*, 604–609.
- Harris, G. T., Rice, M. E., & Quinsey, V. L. (1994). Psychopathy as a taxon: Evidence that psychopaths are a discrete class. *Journal of Consulting and Clinical Psychology, 62*, 387–397.
- Hart, S. D., & Hare, R. D. (1997). Psychopathy: assessment and association with criminal conduct. In D. M. Stoff, J. Breiling, & J. D. Maser (Eds.), *Handbook of antisocial behavior* (pp. 22–35). New York: Wiley.
- Holt, S. E., Meloy, J. R., & Stack, S. (1999). Sadism and psychopathy in violent and sexually violent offenders. *Journal of the American Academy of Psychiatry and Law, 27*, 23–32.
- Huss, M. T., & Langhinrichsen-Rohling, J. (2000). Identification of the psychopathic batterer: The clinical, legal, and policy implications. *Aggression and Violent Behaviour, 5*, 403–422.
- Krafft-Ebing, R. V. (1965). *Psychopathia Sexualis* (H. Wedeck, Trans.). Putnam: New York. (original work published in 1898).
- Langevin, R., Ben-Aron, M. H., Wright, P., Marchese, V., and Handy, L. (1988). The sex killer. *Annals of Sex Research, 1*, 263–301.
- Meloy, J. R. (1997). The psychology of wickedness: Psychopathy and sadism. *Psychiatric Annals, 27*, 630–633.
- Meloy, J. R. (2000). The nature and dynamics of sexual homicide: An integrative review. *Aggression and Violent Behavior, 5*, 1–22.
- Myers, W. C., & Blashfield, R. (1997). Psychopathology and personality in juvenile sexual homicide offenders. *Journal of the American Academy of Psychology and Law, 25*, 497–508.
- Porter, S., Birt A. R., & Boer, D. P. (2001). Investigation of the criminal and conditional release histories of Canadian federal offenders as a function of psychopathy and age. *Law and Human Behavior, 25*, 647–661.
- Porter, S., Campbell, M. A., Woodworth, M., & Birt, A. R. (2001). A new psychological conceptualization of the sexual psychopath. In F. Columbus (Ed.), *Advances in Psychology Research, Volume 7*. (pp. 21–36). Nova Science: New York.
- Porter, S., Fairweather, D., Drugge, J., Herve, H., Birt, A. R., & Boer, D. (2000). Profiles of psychopathy in incarcerated sexual offenders. *Criminal Justice & Behavior, 27*, 216–233.
- Rice, M. E., & Harris, G. T. (1997). Cross-validation and extension of the Violence Risk Appraisal Guide for child molesters and rapists. *Law and Human Behavior, 21*, 231–241.
- Rice, M. E., Harris, G. T., & Quinsey, V. L. (1990). A follow-up of rapists assessed in a maximum-security psychiatric facility. *Journal of Interpersonal Violence, 5*, 435–448.
- Roberts, J. V., & Grossman, M. G. (1993). Sexual homicide in Canada: A descriptive analysis. *Annals of Sex Research, 6*, 5–25.

- Williamson, S. E., Hare, R.D., & Wong, S. (1987). Violence: Criminal psychopaths and their victims. *Canadian Journal of Behavioral Science, 19*, 454–462.
- Woodworth, M., & Porter, S. (1999). Historical foundations and current applications of criminal profiling in violent crime investigations. *Expert Evidence, 7*, 241–264.
- Woodworth, M., & Porter, S. (2002). In cold blood: Characteristics of criminal homicides as a function of psychopathy. *Journal of Abnormal Psychology, 111*, 436–445.