

**Homicidal and NonHomicidal Child Molesters: Psychological,
Phallometric and Criminal Features**

Philip Firestone^{1,2,3}, John M. Bradford^{2,3}, David M. Greenberg^{2,3}, Michel R. Larose, and Susan Curry.³

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1. School of Psychology, University of Ottawa. 2. Department of Psychiatry, University of Ottawa. 3. Sexual Behaviors Clinic
and Forensic Service, Royal Ottawa Hospital.

Address all correspondence to: Dr. Philip Firestone, Professor, School of Psychology and Department of Psychiatry, 120
University Private, Ottawa, Ont., Canada, K1N 6N5. Tel: (613)562-5800#4444 Fax: (613)562-5253 E-Mail:

fireston@uottawa.ca

Abstract

Seventeen extrafamilial homicidal child molesters (HCM) were compared to 35 convicted extrafamilial child molesters (CM) who had not murdered, or attempted to murder, their victims. The two groups did not differ on age, IQ, education, history of marriage or family history, although marriage rates of both groups were well below the national average. Similarly, both groups had high rates of features representing family instability. HCM more frequently victimized strangers. The results on the self-report psychological inventories, the Derogatis Sexual Functioning Inventory (DSFI) and the Buss-Durkee Hostility Inventory (BDHI), did not distinguish between the groups, although the DSFI revealed sexual inadequacy in both groups. The BDHI did not describe the groups as pathological. The Psychopathy Checklist-Revised Total Score, Factor 1, and Factor 2, described both groups as demonstrating high levels of psychopathy, with the HCM scoring significantly higher. Factor 1 and Factor 2 scores placed the HCM group in the 93rd and 82nd percentile, respectively, compared to published norms for forensic patients. A greater proportion of HCM suffered from antisocial personality disorders and paraphilias, especially sexual sadism. Over 53% of the HCM, and none of the CM, were comorbid for pedophilia and sexual sadism. Significantly more HCM received three or more DSM III-R diagnoses. The phallometric assessments generally supported DSM diagnoses. The HCM demonstrated significantly higher levels of deviant sexual arousal to pedophilic and adult assault stimuli. Police files revealed that, prior to the index offense, a significantly greater proportion of HCM had been charged or convicted of violent nonsexual, and sexual offenses. The HCM had been charged with, or convicted of, more than 2½ times as many criminal charges than the CM. A discriminant function analysis revealed that two variables, Factor 1 of the PCL-R and the number of violent entries in the police records, correctly predicted 78.6% of the HCM and 97.1% of the CM. Implications for understanding homicidal child molesters and for future research

are discussed.

Sexual homicides are generally the most disturbing criminal acts experienced by communities. Although they constitute only 3% of all homicides in Canada (Canadian Center for Justice Statistics, 1995), they raise fears not generally associated with other types of murders because their victims are most frequently women and children. When the victim is a child the impact of the offense is particularly distressing. Children constitute 8% of the victims of sexual homicide in Canada, with approximately the same number of males and females. There is a limited amount of psychological research available on men who commit sexual murders, and no distinction has been made between those who have victimized adults and those who victimized children.

A number of studies present descriptions of sexual murderers (Ressler, Burgess, & Douglas, 1983; Ressler, Burgess, Hartman, Douglas, & McCormack, 1986), crime scene behaviors and sadistic acts perpetrated (Dietz, Hazelwood, & Warren, 1990; Ressler, Burgess, Douglas, Hartman, & D'Agostino, 1986; Warren, Hazelwood, & Dietz, 1996), and personal background and fantasies of offenders (Burgess, Hartman, Ressler, Douglas, & McCormack, 1986; Prentky, Burgess, Rokous, Lee, Hartman, Ressler, & Douglas, 1989). These reports are largely based on archival data and/or interviews with offenders, without use of standardized assessment techniques or control groups (Busch & Cavanaugh, 1986; Quinsey, 1990).

Some clinical literature suggests many sexual murderers are psychotic (Revitch, 1965), while others report psychosis is rare (Dietz, 1986). There is some consensus in the literature that the feature which most frequently distinguishes sexual from other murderers is the focus on sexually sadistic acts in order to achieve arousal (Brittain, 1970; Burgess et al., 1986; Dietz, 1986; Langevin, Ben-Aron, Wright, Marchese, & Handy, 1988). There is also some evidence that these men may have multiple paraphilias

(Gratzer & Bradford, 1995; Langevin, et al., 1988). Historical evidence on homicidal sexual offenders suggests they were often victims of child sexual abuse (Ressler et al., 1986), familial instability (Burgess et al., 1986), and low rates of marriage (Brittain, 1970).

Langevin et al. (1988) compared 13 sexual killers with, 13 nonsexual killers and 13 nonhomicidal sexually aggressive men. Using conventional psychological and diagnostic approaches, they found more similarities than differences between the groups. Nevertheless, it was clear the sexual killers victimized strangers more frequently, were more frequently diagnosed as having antisocial personality and sadism, and showed deviant phallometric responses to sadistic stimuli.

In a recent study in our clinic (Firestone, Bradford, Greenberg, & Larose, 1997), 48 homicidal sexual offenders were compared to 50 incest offenders. The results revealed the homicidal offenders were rated significantly higher on the Psychopathy Checklist-Revised (PCL-R), Factor 1 and Factor 2, had a higher incidence of psychoses, personality disorders, paraphilias and addictions. They also showed more deviant phallometric responses to assaultive acts with children.

Although there are no controlled investigations with homicidal child molesters, there is a considerable body of research with extrafamilial child molesters who have not murdered. Research has described this group as demonstrating poor social skills and social perception, a high level of heterosocial inadequacy (Baxter, Marshall, Barbaree, Davidson, & Malcolm, 1984; Segal & Marshall, 1985), a high incidence of sexual abuse during childhood (Hanson & Slater, 1988; Hilton, 1993), and extensive use of denial (Alford & Kasper, 1987). Hanson, Scott, & Steffy (1995) found child molesters, compared to nonsexual criminals, were more likely to have a greater number of previous sexual offenses. Several studies have demonstrated that extrafamilial child molesters, when compared with incest offenders, showed more deviant fantasies and more deviant arousal to child scenarios, reflecting strong sexual

interest in children (Abel, Becker, & Cunningham-Rathner, 1984; Marshall, Barbaree, & Eccles, 1991). There is also evidence child molesters reoffend significantly more frequently than incest offenders, reflecting the greater risk they pose (Hanson & Bussière, 1996; Quinsey, Lalumière, Rice, & Harris, 1995).

The present investigation is an attempt to more fully understand homicidal child molesters by using standardized assessment techniques. Seventeen homicidal child molesters (HCM) were compared to 35 convicted child molesters (CM) on commonly used psychological inventories, phallometric assessments, DSM III-R diagnoses at intake, and documented police records.

Method

Subjects

All subjects were assessed at the Royal Ottawa Hospital Sexual Behaviors Clinic (SBC), between 1982 and 1992. All subjects were 18 years of age or older at the time of their offense. The homicidal child molesters (HCM) were 17 men referred either prior to trial or during incarceration, for a sexual behavior assessment. Each had committed or attempted a nonincestual sexually motivated homicide. Nine subjects were convicted of murder, one of murder with mutilation, and seven with attempted murder. They had eight male and nine female victims. The HCM in the present investigation were a subset of the subjects used in previous research from our laboratory (Gratzer & Bradford, 1995). The CM were chosen by selecting the next two men in the clinic files, within 12 months of age of a HCM, who had been convicted of a hands-on nonincestual sexual offense against a minor. They had 17 male and 18 female victims.

Procedures

The assessment process at the SBC routinely included several components. Typically, upon arrival at the clinic, a psychiatric interview was conducted by a staff psychiatrist. After a second interview, a diagnosis was made according to the DSM-III and DSM-III-R. The distribution of the diagnoses in the two groups is presented in Table 1. It is important to note these diagnoses were made with the clinicians being fully aware of the subjects index offense. During the interviews, the subject's written consent was obtained for completion of all questionnaires and phallometric testing. Demographic data collected included age, marital status, education and employment status. The number and gender of victims, history of suicidal behavior, family historical features, and previous history of physical violence was also collected. The perpetrator's degree of sexual violence in the index offenses was rated by the clinician on an incremental three-point scale (called the Sexually Aggressive Scale, (SAS): (a), attempt or touching (fondling, masturbation, and/or kissing), (b), serious assault (genital and/or anal and/or oral penetration), (c), sexual assault with excessive violence (use of violence, weapons, and/or mutilation of body). Corroborating information was generally available from police reports and witness statements. The diagnoses were made prior to phallometric or psychological testing.

Sexual Functioning

The Derogatis Sexual Functioning Inventory (DSFI) is designed to assess general and specific dimensions of sexual functioning (Derogatis, 1978; 1980). The DSFI collects information using numerous items at once in order to grasp "the fundamental components judged essential to effective sexual behavior" (Derogatis, 1980, p.117). The 10 subscales are as follows: (a) Information assesses individuals' knowledge of sexual anatomy, psychology, and behaviors using 26 true-false items; (b) Experience assesses individuals' past sexual experiences using a list of 24 sexual behaviors; furthermore, the individuals are asked if those behaviors experienced were recent (in the past 60 days); (c) Sexual

Drive assesses individuals' age at which sexual interests and intercourse began; in addition, individuals were asked to indicate frequency ratings for sexual intercourse, masturbation, kissing and petting, sexual fantasy, and ideal frequency of intercourse in order to yield an overall measure for sexual drive; (d) Sexual Attitude assesses the respondents' attitudes concerning sexual behaviors using a five-point scale (ranging from -2 to 2); low scores represent a conservative point of view, while higher scores are more liberal and are considered positive for healthy sexual functioning; (e) Psychological Symptoms - also known as the Brief Symptom Inventory (BSI) - is a multidimensional measure reflecting symptoms of distress on nine primary dimensions, although only one of the three global indices (Global Severity Index) contributes to the DSFI profile; (f) Affect - also known as the Affect Balance Scale (ABS)-measures a wide range of positive and negative emotions via a 40-item adjective check list; (g) Gender Role Definition reflects the degree to which respondents polarize their definitions of masculine and feminine; more polarized scores are considered more rigid and these individuals are prone to unfulfilled expectations and difficulties with sexual functioning; (h) Sexual Fantasy consists of 20 sexual fantasy themes and the score is the number of the themes endorsed by the respondents; (i) Body Image consists of ten general body attributes and five gender specific features which respondents rate according to how satisfied they are with themselves; (j) Satisfaction consists of ten items reflecting level of sexual fulfilment. The Sexual Functioning Index (SFI), is a global measure derived by summing the ten subtest scores and thus provides an overall measure of an individual's level of sexual functioning.

The DSFI has been used with large nonforensic samples. Its use with sexual offenders is limited. Pawlak, Boulet, & Bradford (1991) using the DSFI found that extrafamilial child molesters endorsed more fantasy themes than did the incestuous offenders. However, incestuous offenders scored higher on sexual experience and satisfaction scales. There is some suggestion that sexual offenders show high levels of

sexual dissatisfaction (Hanson, Cox, & Woszczyzna, 1991). In an unpublished study at our clinic, all DSFI subscales except for Sexual Fantasy, distinguished a group of rapists who admitted their crimes from a normal control group. In each instance the normal group indicated better functioning (Pawlak, 1994)

Hostility

The Buss-Durkee Hostility Inventory (BDHI) contains 75 true-false statements which provide a measure of seven constructs representing general hostility. The BDHI consists of five assault subscales: (a) Assault - physical violence against others; (b) Indirect Aggression - devious hostility like gossip; (c) Irritability - quick temper, ready to explode at slight provocation; (d) Negativism - usually oppositional behavior against authority, refusing to cooperate; (e) Verbal Aggression - negative feelings in content and style, e.g., shouting, these subscales are designed to measure aggressiveness: there are two hostility subscales: (a) Resentment - jealousy, anger at mistreatment; and (b) Suspicion - projection of hostility onto others. An additional construct captured by the BDHI is Guilt, reflecting the degree of guilty feelings reported by the subject. This scale is part of the inventory but not included in the Total Score. There is a substantial body of validation evidence to support this widely used inventory (Buss & Durkee, 1957; Buss, 1961; Geen & George, 1969; Sarason, 1961). A Total Score of 38 and above is considered high according to Buss and Durkee (1957). Among sexual offenders, BDHI scores for violent rapists have been significantly higher than those for nonoffending controls (Rada, Laws, & Kellner, 1976). In an unpublished study at our clinic comparing a group of rapists who admitted to their crimes to a normal control group, the scales of Indirect Aggression, Irritability, Resentment, Suspicion, Guilt and the Total Score distinguished the two groups. In each instance, rapists rated themselves as demonstrating more hostility (Pawlak, 1994).

Alcohol Abuse

The Michigan Alcoholism Screening Test (MAST) is used to identify incidence or behaviors indicative of alcohol abuse (Selzer, Vonokur, & van Rooijan, 1975; Gibbs, 1983). It is a self-report inventory containing 24 items which represent the common signs of alcoholism such as work problems due to alcoholism, medical problems associated with alcoholism and alcohol withdrawal symptomatology (Selzer, 1971). The validity and reliability of this instrument are well established (Selzer, 1971; Selzer et al., 1975). The internal consistency has a reported overall alpha coefficient of 0.87 and a validity coefficient of $r=0.79$ ($\gamma = 0.95$), and is relatively unaffected by age or denial of socially unacceptable characteristics (Magruder-Habid, Steven, & Alling, 1993; Magruder-Habid, Durand, & Frey, 1991). Respondents answer "yes" or "no" to each of the items. Scores of five or six are considered suggestive of alcohol problems and a score of seven or more is considered strongly indicative of alcohol abuse (Allnutt, Bradford, Greenberg, & Curry, 1996). The MAST has been found to correlate with DSM III R criteria for alcohol dependence (Magruder-Habid et al., 1993). The MAST has been extensively used as a screening tool for alcoholism, and many studies have utilized samples of sex offenders (e.g., Allnutt et al., 1996; Hucker, Langevin, & Bain, 1988; Rada, 1975; Rada, Laws, & Kellner, 1976).

Psychopathy

The Psychopathy Checklist-Revised (PCL-R) consists of 20 clinical rating scales designed to assess behaviors and personality characteristics considered fundamental to psychopathy (Hare, 1991). Rigorous testing has indicated that the PCL-R is a psychometrically sound instrument; the reported alpha coefficient, aggregated across seven samples of incarcerated males from Canada, the U.S. and England was .87 (Hart, Hare, & Harpur, cited in Hare, Forth, & Strachan, 1992). Valid PCL-R ratings can be made on the basis of high quality archival information (Harris, Rice, & Quinsey, 1994; Quinsey, Rice, & Harris, 1995). The PCL-R is beginning to receive widespread use in sexual offender research (Quinsey et al.,

1995; Serin, Malcolm, Khanna, & Barbaree, 1994). In both Harpur, Hakstian, & Hare (1988) and Hare et al. (1990), the existence of two factors was replicated using various samples: (a) the degree of personality, interpersonal, and affective traits deemed significant to the construct of psychopathy; and (b) the degree of antisocial behavior, unstable, and corrupted lifestyle.

In the present investigation, the PCL-R was completed from descriptive material contained in institutional files by two research assistants. The PCL-R was scored only from files where there were high quality archival data, by two individuals fully trained in its use. A random sample of 100 clinic files were independently rated by each researcher, resulting in satisfactory interrater reliability correlation $r=.88$, $p<.0001$.

Criminal Offense History

Previous offense information was gathered from the Canadian Police Information Center (CPIC) at the Ottawa Police Station, a national data base of criminal arrests and convictions including INTERPOL reports from the Royal Canadian Mounted Police. Records were matched to individual subjects according to name, date of birth, and index offense particulars. CPIC records, are clear and concise computer printouts which contain the individual's criminal history and include details such as the date of charge or conviction, the nature of the offense, the disposition of the incident (i.e., convicted, charges withdrawn, stay of proceedings) and sentence/penalty imposed in cases of convictions.

Measurement of Sexual Arousal

Changes in penile circumference in response to audio/visual stimuli were measured by means of an Indium-Gallium strain gauge and monitored by a Farrell Instruments CAT200. These data were then processed in an IBM compatible computer for storage and printout.

Stimuli Presentation: The order of stimulus presentation, held constant for all subjects, was computer

controlled using MPV-Forth version 3.05 software provided by Farrell Instruments. Videotapes were presented first, followed by a set of slides. Finally, subjects were presented with one or more of three series of audiotapes, according to the nature of the subject's sexual offense. Only the results of arousal to the audiotape stimuli will be presented in the present paper. The audiotapes consisted of 120 second vignettes which described sexual activities varying in age, gender, and degree of consent, coercion and/or violence portrayed (Abel, Blanchard, & Barlow, 1981). Each subject was presented with a full set containing one vignette from each category following instructions to allow normal arousal to occur. The female child series consisted of descriptions of sexual activity with a female partner/victim for eight categories. The male child series consisted of eight corresponding vignettes involving a male partner/victim but also included one scenario involving an adult female partner. For each of the female child and male child series, two equivalent scenarios for each category were included. Categories were: (a) child initiates, (b) child mutual, (c) nonphysical coercion of child, (d) physical coercion of child, (e) sadistic sex with child, (f) nonsexual assault of child, (g) consenting sex with female adult, and (h) sex with female child relative (incest). The audiotape series used to identify sexual attraction to rape included two scenarios of two-minute duration for each of three categories: (a) consenting sex with adult female, (b) rape of adult female, (c) non-sexual assault of adult female.

Scoring: The Pedophile Index was computed by dividing the highest response to the child initiates or child mutual stimulus by the highest response to an adult consenting stimulus. The Pedophile Assault Index was computed by dividing the highest response to an assault stimulus involving a child victim (non-physical coercion of child, physical coercion of child, sadistic sex with child, or nonsexual assault of child) by the highest response of the child initiates or child mutual stimulus. The Highest Pedophile Index was the highest of either the Pedophile Index or the Pedophile Assault Index. The Rape Index was

computed by dividing the highest response to a rape stimulus by the highest response to an adult consenting stimulus. The Assault Index was computed by dividing the highest response to a nonsexual assault stimulus by the highest response to an adult consenting stimulus.

Results

As indicated in Table 2, there were no significant differences between the HCM and the CM on Age, IQ, Education, or Ever Married items. The victims of the HCM were more frequently strangers (64.3%) compared to the CM (11.1%). Only two historical events distinguished between the groups: The HCM rated themselves higher on Previous History of Violence and Previous Forensic Psychiatric Contact (86.7% vs 34.5% and 86.7% vs 14.7%, respectively).

The analyses of the self-report psychological inventories, presented in Table 3, revealed no significant differences between the groups. However, on the measure of psychopathy (PCL-R), the HCM were rated significantly higher than the CM on Factor 1 (13.77 vs. 7.88) and Factor 2 (14.05 vs. 6.93) as well as the Total Score (28.66 vs. 16.57).

The phallometric assessments, presented in Table 4, indicated that the HCM had significantly higher sexual arousal on the Pedophile Assault Index and the Highest Pedophile Index compared with the CM (means of 1.19 vs. 0.68 and 1.33 vs. 1.00, respectively).

As expected, the analysis of the Sexually Aggressive Scale presented in Table 5, indicated that the CM committed more of the less serious behaviors, such as fondling, masturbation and kissing (52.9%) compared to the HCM (13.3%). In contrast, 66.7% of the HCM used excessive violence, weapons and/or mutilated their victims compared to none of the CM. A greater proportion of HCM had a history of charges or convictions for violent offenses (46.7% vs. 11.4%), and had a higher number of these events

(M of 1.0 vs. 0.23). A greater number of HCM also had a history of sexual offenses (26.7% vs. 5.7%). More HCM had a criminal record (66.7% vs. 25.7%) and a greater number of offenses (M of 5.0 vs. 1.74).

A step-wise discriminant function analysis was carried out to assess the combination of factors that most successfully distinguished between the two groups of offenders. Self-report data were not used because of the relative unreliability of such information. For the same reason, information describing the index offenses was also not used. The remaining factors that statistically differentiated the groups were utilized in the analysis (Number of Previous Offenses - Total, Number of Previous Offenses - Violent, PCL-R Total Score, Factor 1, Factor 2, Pedophile Assault Index, Highest Pedophile Index, Highest Rape or Assault Index,). The loading matrix of correlations between predictors and discriminant functions suggested the best predictors for distinguishing between HCM and CM were PCL-R, Factor 1 and Number of Previous Offenses - Violent. The result was a significant discriminant function ($\chi^2(2, N=48) = 26.69, p < .0001$). The procedure correctly classified 91.7% of the original group, 78.6% of the HCM and 97.1% of the CM. This represents a rate of improvement over chance of 55.3% for the HCM and 20.4% for the CM.

Discussion

The results of the present investigation revealed that HCM do not differ appreciably from CM on most demographic factors and self-reported historical information. The subjects were comparable to child molesters reported in other studies in terms of age, IQ, education and marital rates (Hanson et al., 1995; Prentky, Knight, & Lee, 1997; Quinsey, et al., 1995). It appears that the marital rates of the both groups of CM are well below the Canadian national rate of 75.6%, for men between 30 and 40 years of age (Statistics Canada, personal communication, April 25, 1997). The HCM victimized strangers much more

than the CM group. If the preferred sexual activity of the HCM, as compared with the CM, was assaultive in nature, as is suggested by their PAI scores, developing or maintaining a relationship with children may not have been a preferred activity. There is considerable evidence that many nonhomicidal child molesters enjoy, if not prefer, a wide variety of activities with children. Of course, this pattern may be part of their grooming process. There are no other studies with HCM to refer to, in this regard.

The two groups of child molesters in the present study, the HCM and the CM, did not differ in their reports of personal and family histories, but showed disturbingly high rates of problems in childhood. Over 40% of the total group of men had been placed outside of the home before 16 years of age, alcoholism was reported as present in 45.5% of their familial homes, 55% experienced violence in the family home, and over 47% reported being physically abused. Although there is no way of directly comparing the incidence of such experiences to other populations, it does support the general contention that sexual offenders come from disturbed homes (Burgess, et al., 1966, Quinsey, 1990; 1995). Further research in this area might explore the differences in family background of men who commit homicide and men who commit sex offenses, and shed light on the necessary and sufficient causes for homicidal sexual acts.

The self-reported psychological inventories used in the present investigations revealed no differences between the two groups of child molesters. These tests, however, were not designed to be used with forensic populations or sexual offenders. The outstanding feature on the DSFI was the poor sexual functioning of both groups of offenders. On many factors - Information, Experience, Sexual Attitudes, Affects, Body Image - the groups scored in the 16th percentile. Their overall level of sexual functioning (Sexual Functioning Index) was at the 7th percentile (Derogatis & Melisaratos, 1979), revealing marked inadequacy in sexual functioning. These findings may add support to previous reports

of child molesters' deviant sexual interests and fantasies (Abel et al., 1981; Barabaree & Marshall, 1989; Prentky, Knight, & Lee, 1997). On the BDHI, neither group disclosed experiencing undue frustration or stress, and their byproduct of hostility.

In contrast to the self-report inventories, the PCL-R did reveal significant differences between groups. It is important to note that the PCL-R was completed solely on file information by researchers who had undergone specialized training in the use of this procedure. The Total Score of the PCL-R placed the HCM group at the 84th percentile of male forensic patients and the 68th percentile of prison inmates. The corresponding percentiles for the personality traits normally associated with psychopathy as measured by Factor 1 (glibness, superficial charm, lack of remorse or guilt, shallow affect, lack of empathy) were at the 93rd for the HCM group and 86th percentile for the CM group. On Factor 2, which rates antisocial behavior and/or criminal lifestyle, the HCM score was at the 82nd percentile compared to forensic patients and the 71st percentile compared to prison inmates. The PCL-R Total Score for the CM group placed them at the 50th percentile while their Factor 1 score placed them in approximately the 40th percentile and the Factor 2 score placed them in approximately the 15th percentile. There was a high degree of psychopathy shown by all child molesters, especially on Factor 1; this may be predictive of lack of insight, shallowness and/or manipulation that might have lead to the relatively positive self-reports on the psychological inventories. The relatively higher rating on Factor 1 compared to Factor 2 for both groups of child molesters, and the exceedingly high Factor 1 score of the HCM group are important findings. Generally, sexual offender research with the PCL-R has not distinguished Factor 1 from Factor 2. It is also interesting to note that personality features appear to be more robust in distinguishing between the two offender groups. This is interesting since most research with child molesters suggests previous criminal activity, which is reflected in Factor 2, is related to higher risk for recidivism (Hanson

&Bussière, 1996). Further research with the PCL-R and homicidal men is required to address this issue.

There has been controversy about the usefulness of phallometric assessment with sexual offenders in general, and contradictory results in its discriminative ability (Barbaree, Baxter, Marshall, 1989; Baxter, et al., 1984; Blader & Marshall, 1989; Quinsey, Chaplin, & Upfold, 1984; Rice, Harris, & Quinsey, 1990). At the same time, there is support for the usefulness of phallometric assessment with child molesters in particular. Studies have demonstrated that this type of measure can discriminate between child molesters, normal controls, and incest offenders as well (Abel et al, 1988; Lalumière & Quinsey, 1993; Quinsey, Chaplin, & Carrigan, 1979). Furthermore, a recent meta-analysis suggested that deviant phallometric responses in child molesters represent one of the stronger predictors of recidivism with nonhomicidal offenders (Hanson & Bussière, 1996). Even though in the present study, deviant arousal to pedophilic stimuli did not contribute to the discriminant function, the phallometric findings are important. In most clinics deviant arousal indices of .75 are considered cause for concern (Marshall, Barbaree & Eccles, 1991). Both the HCM and the CM demonstrated deviant sexual arousal at that level. However, unlike the CM, the HCM showed the greatest sexual arousal to scenes which depicted children being physically and sadistically assaulted. The small number of subjects may have been one reason this variable did not contribute to the discriminant analysis. In a recently completed study with 192 extrafamilial child molesters (homicidal child molesters were not included) we found that the PAI was significantly related to sexual, violent and general criminal recidivism. As an additional indicator of its importance, a combination of PAI, previous criminal convictions, and offender's age, was able to reliably predict 71% of recidivists and non recidivists (Firestone, Bradford, Greenberg, McCoy, Curry & Larose, 1997). One interpretation of these findings is that, although high PI scores may be disturbing, it is the fusion of pedophilic and assaultive sexual arousal in an individual that poses the greatest danger.

The police records concerning offenses prior to the index offense were valuable. Over 66% of the HCM had been charged with, or found guilty of, an average of five criminal offenses. This is about 2½ times the rate for CM. Most revealing was the finding that more than four times as many HCM had been charged, or convicted of, sexual or violent offenses when compared with the CM. HCM have a more serious criminal history as well as indicated by the discriminant function, two measures, one related to personality style and the other to criminal history, together correctly predicted 78.6% of the HCM and 97.1% of the CM, representing a rate of improvement over chance of 55.3% for the HCM, and 20.4% for the CM. This combination of police records and personality features derived from chart review was surprisingly accurate in predicting group membership.

The reviewers of the present paper asked for comments concerning how our results might relate to the enactment of Megan's law or the Community Notification Statutes in the United States. In recent publications in this journal Berliner cited the lack of specific profile data on these convicted sex offenders that necessitates individual public notification (Berliner, 1996), whereas Freeman-Longo opposed these laws on the basis they may be counter productive when the impact on the greater community is considered (Freeman-Longo, 1996). Basically, the controversy with community notification is whether all sex offenders, and child molesters in particular, should be included, or only those where there is a substantial risk to the community. The supporters of the statutes would like all child molesters to be included. As these laws are likely to be enacted in all states in the future, any data that helps to identify high risk offenders, and homicidal child molesters in particular, is potentially useful in narrowing the application of the law. We believe our data may assist both camps by further delineating the most important offender characteristics and behavior, and further assist correctional professionals in making determinations of the level of risk for these individuals. Three findings in the present data seem particularly important. First,

phallometric assessment may still have an important role to play in the assessment of risk, in men that sexually molest children. In this regard, the PAI might be considered the most important phallometric predictor of criminal sexual behaviour, including sexually related homicide. In addition, the PCL-R, a relatively inexpensive and reliable assessment should be considered an integral component of any assessment battery. Finally, previously documented violent offense charges and convictions should continue to be considered a key element in any assessment of risk.

Some caution is required in the interpretation of these results. The discriminant function analysis was carried out with a smaller number of subjects than one would prefer. We hope to repeat this analysis in the near future with a larger sample size, to gauge its robustness. In addition, the research assistants were not blind to the group membership of individuals under consideration. The index offense of homicide might well have influenced the PCL-R ratings. However, raters cannot be blinded to the acts involved in the commission of the index offense, and this will inevitably constitute a potential confound. Nevertheless, support for the reliability of results comes from the convergence of the findings from sources more amenable to influence (e.g. PCL-R), and those measures that are less prone to distortion (e.g. phallometric measures, CPIC). It is evident HCM, as compared to CM, have committed more criminal acts and have been more violent, as documented by police records, and they demonstrated significantly more deviant sexual arousal patterns. The results on the self-report psychological inventories, on the other hand, suggest such information should be utilized with considerable caution, when attempting to discriminate between groups. Finally, the PCL-R demonstrated its usefulness in forensic work. The accuracy of prediction to group membership using Factor 1 and previous violent acts, suggests that future research with the PCL-R should consider using the Factors in addition to the Total Score.

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Table 1. DSM Diagnoses for Homicidal Child Molesters (HCM) and Non-homicidal Child Molesters (CM).

	HCM (N)	CM (N)	χ^2	df	p<
DSM diagnoses ^a					
Schizophrenic and/or psychosis	11.8 (2)	2.9 (1)	1.67	1	NS
Affective disorders	0 (0)	5.7 (2)	1.01	1	NS
Anxiety disorders	0 (0)	2.9 (1)	.50	1	NS
Personality disorders	41.2 (7)	8.6 (3)	7.83	1	.005
Antisocial personality disorder	23.5 (4)	0 (0)	8.92	1	.003
Psychosexual disorders	0 (0)	2.9 (1)	.50	1	NS
Paraphilias	82.4 (14)	42.9 (15)	7.24	1	.007
Atypical: fetishism, voyeurism, exhibitionism, frotteurism, transvestic fetishism	11.8 (2)	2.9 (1)	1.67	1	NS
Pedophilia	52.9 (9)	42.9 (15)	.47	1	NS
Sexual sadism	82.4 (14)	0 (0)	39.44	1	.001
Pedophilia & sexual sadism	52.9 (9)	0 (0)	22.41	1	.001
Substance abuse	35.3 (6)	14.3 (5)	3.03	1	NS
Alcohol	23.5 (4)	11.4 (4)	1.29	1	NS
Drugs	17.6 (3)	5.7 (2)	1.88	1	NS

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Adjustment disorders	11.8 (2)	11.4 (4)	.00	1	NS
DSM diagnoses					
0	0 (0)	48.6 (17)	12.27	1	.001
1	5.9 (1)	11.4 (4)	.41	1	NS
2	23.5 (4)	28.6 (10)	.15	1	NS
3 or more	70.6 (12)	11.4 (4)	18.80	1	.001

^a For diagnoses, the percentage of subjects is presented first, followed by the number of subjects in parentheses.

Table 2. Demographic and Self-Reported Characteristics of Homicidal Child Molesters (HCM) and Non-homicidal Child Molesters (CM).

	HCM (N)	CM (N)	t or χ^2	df	p<
Age	35.2 ± 10.94 (17)	37.1 ± 11.78 (35)	-.54	50	NS
IQ	98.0 ± 17.53 (15)	91.2 ± 18.24 (21)	1.12	34	NS
Education	9.8 ± 1.98 (17)	11.1 ± 4.09 (33)	-1.51	47.9	NS
Ever married ^a	26.7 (4)	48.6 (17)	2.07	1	NS
Stranger relationship to the victim	64.3 (9)	11.1 (3)	12.59	1	.001
History of alcohol dependency	33.3 (5)	37.1 (13)	.07	1	NS
History of drug abuse	13.3 (2)	29.4 (10)	1.46	1	NS
History of suicidal behavior	28.6 (4)	26.5 (9)	.02	1	NS
Previous history of violence ^b	86.7 (13)	34.5 (10)	10.79	1	.001
Outside placement < 16	62.5 (5)	30.0 (9)	2.87	1	NS
Family history of alcoholism	37.5 (6)	48.5 (16)	.53	1	NS
Family history of drug abuse	12.5 (2)	19.4 (6)	.35	1	NS
Family history of mental illness	26.7 (4)	25.8 (8)	.00	1	NS
Family history of violence	66.7 (4)	51.6 (16)	.46	1	NS
Family history of criminality	18.8 (3)	10.0 (3)	.70	1	NS
Intact family	62.5 (5)	64.7 (22)	.01	1	NS
Physical abuse <16	28.6 (2)	50.0 (13)	1.04	1	NS

^a For categorical data, the percentage of subjects is presented first, followed by the number of subjects in parentheses.

^b This item was rated by the clinician based on documentation

Table 3. Psychological Test Scores of Homicidal Child Molesters (HCM) and Non-homicidal Child Molesters (CM).

	HCM (N)	CM (N)	t	df	p<
Derogatis Sexual Functioning Inventory					
Information	44.38 ± 10.54 (16)	37.97 ± 11.28 (34)	1.91	48	NS
Experience	38.77 ± 11.11 (17)	42.50 ± 10.83 (34)	-1.15	49	NS
Sexual drive	50.56 ± 11.92 (16)	44.50 ± 9.31 (34)	1.96	48	NS
Sexual attitude	38.29 ± 5.52 (17)	38.94 ± 9.55 (34)	-.26	49	NS
Psychological symptoms	46.79 ± 12.45 (17)	43.57 ± 15.09 (34)	.76	49	NS
Affects	41.94 ± 13.56 (17)	41.06 ± 12.53 (34)	.23	49	NS
Gender role definition	45.65 ± 9.94 (17)	40.91 ± 7.17 (34)	1.95	49	NS
Sexual fantasy	44.18 ± 9.00 (17)	43.50 ± 12.36 (34)	.20	49	NS
Body image	41.24 ± 12.71 (17)	39.32 ± 6.78 (34)	.58	20.68	NS
Satisfaction	49.31 ± 9.29 (16)	46.00 ± 10.40 (32)	1.08	46	NS
Sexual functioning index	34.60 ± 12.14 (15)	30.21 ± 10.08 (33)	1.31	46	NS
Buss-Durkee Hostility Inventory					
Assault	2.88 ± 2.50 (17)	3.11 ± 2.51 (35)	-.31	50	NS
Indirect hostility	4.82 ± 1.70 (17)	3.94 ± 2.27 (35)	1.41	50	NS
Irritability	4.18 ± 2.35 (17)	4.20 ± 2.42 (35)	-.03	50	NS
Negativism	1.71 ± 1.45 (17)	2.06 ± 1.53 (35)	-.79	50	NS
Verbal hostility	7.00 ± 1.94 (17)	6.09 ± 2.93 (35)	1.34	45.16	NS
Resentment	2.88 ± 2.39 (17)	3.23 ± 2.17 (35)	-.52	50	NS
Suspicion	3.06 ± 2.70 (17)	4.26 ± 2.76 (35)	-1.48	50	NS
Guilt	4.82 ± 2.24 (17)	5.03 ± 2.74 (35)	-.27	50	NS
Overall score	26.53 ± 10.67 (17)	26.89 ± 12.16 (35)	-.10	50	NS
Hare's Psychopathy Checklist					
Factor 1: Psychopathic personality	13.77 ± 2.28 (16)	7.88 ± 2.32 (34)	8.41	48	.001
Factor 2: Antisocial behavior	14.05 ± 3.62 (16)	6.93 ± 5.04 (27)	5.37	39.34	.001
Total score	28.66 ± 5.83 (17)	16.57 ± 6.63 (35)	6.40	50	.001

Table 4. Phallometric Measures for Homicidal Child Molesters (HCM) and Non-homicidal Child Molesters (CM).

	HCM (N)	CM (N)	t	df	p<
Pedophile index	.72 ± .50 (15)	.74 ± .76 (34)	4.28	47	NS
Pedophile assault index	1.19 ± .47 (15)	.68 ± .68 (34)	3.04	38.3	.004
Highest pedophile index	1.33 ± .34 (15)	1.00 ± .82 (34)	1.98	46.9	.05
Rape index	.25 ± .34 (17)	.46 ± .51 (35)	1.79	44.8	NS
Assault index	.37 ± .43 (17)	.28 ± .46 (35)	.66	50	NS
Highest rape or assault index	.47 ± .43 (17)	.46 ± .51 (35)	.09	37.2	NS

Table 5. Sexually Aggressive Scale and CPIC of Homicidal Child Molesters (HCM) and Non-homicidal Child Molesters (CM).

	CM (N)	CM (N)	χ^2	df	p<
Sexually aggressive scale					
Attempt or touching	13.3 (2)	52.9 (18)	6.76	1	.009
Serious assault	20.0 (3)	47.1 (16)	3.21	1	NS
Sexual assault with excessive violence	66.7 (10)	0 (0)	28.45	1	.001
Number of previous offenses					
Nonviolent nonsexual (present vs. non-present)	46.7 (7)	25.7 (9)	2.12	1	NS
Nonviolent nonsexual (number)	3.33 ± 3.98 (15)	1.40 ± 2.94 (35)	1.70	20.9	NS
Violent (present vs. non-present)	46.7 (7)	11.4 (4)	7.60	1	.006
Violent (number)	1.00 ± 1.31 (15)	.23 ± .73 (35)	2.14	17.9	.046
Sexual (present vs. non-present)	26.7 (4)	5.7 (2)	4.37	1	.037
Sexual (number)	.67 ± 1.23 (15)	.11 ± .53 (35)	1.67	16.3	NS
Total (Present vs. non-present)	66.7 (10)	25.7 (9)	7.47	1	.006
Total (number)	5.00 ± 5.30 (15)	1.74 ± 3.53 (35)	2.18	19.5	.042