Differentiation of Homicidal Child Molesters, Nonhomicidal Child Molesters, and Nonoffenders by Phallometry

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ABSTRACT

Objective: The purpose of this study was to examine the ability of phallometry to discriminate between homicidal child molesters (HCMs), nonhomicidal child molesters (CMs), and controls. **Method:** Thirty-one HCMs who had committed or had attempted a sexually motivated homicide, 189 CMs, and 47 normal-controls were compared on demographic variables and phallometric responses. The Pedophile Index (PI) 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 (PAI) was computed by dividing the highest response to an assault stimulus involving a child victim by the highest response of the child initiates or child mutual stimulus. **Results:** HCMs, CMs, and controls were not significantly different on Age or IQ. CMs had significantly higher PI scores than controls. Significantly more HCMs (51.9%) and CMs (46.7%) had PI scores equal to or greater than 1.0 compared to controls (27.7%) and HCMs had significantly higher PAI scores than both CMs and controls. Furthermore, significantly more HCMs (63.0%) than either CMs (39.9%) or controls (36.2%) had PAI scores equal to or greater than 1.0. Within-group analyses revealed that of the three groups, only the CMs exhibited a significant difference between their PI and PAI scores with their PI scores being higher. **Conclusions:** Consistent with past research, the PI is useful in differentiating HCMs and CMs from controls and the PAI is able to differentiate HCMs from CMs and controls.

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ABSTRACT

Objective: The purpose of this study was to examine the ability of phallometry to discriminate between homicidal child molesters (HCMs), nonhomicidal child molesters (CMs), and controls. **Method:** Thirty-one HCMs who had committed or had attempted a sexually motivated homicide, 189 CMs, and 47 normal-controls were compared on demographic variables and phallometric responses. The Pedophile Index (PI) 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 (PAI) was computed by dividing the highest response to an assault stimulus involving a child victim by the highest response of the child initiates or child mutual stimulus. **Results:** HCMs, CMs, and controls were not significantly different on Age or IQ. CMs had significantly higher PI scores than controls. Significantly more HCMs (51.9%) and CMs (46.7%) had PI scores equal to or greater than 1.0 compared to controls (27.7%) and HCMs had significantly higher PAI scores than both CMs and controls. Furthermore, significantly more HCMs (63.0%) than either CMs (39.9%) or controls (36.2%) had PAI scores equal to or greater than 1.0. Within-group analyses revealed that of the three groups, only the CMs exhibited a significant difference between their PI and PAI scores with their PI scores being higher. **Conclusions:** Consistent with past research, the PI is useful in differentiating HCMs and CMs from controls and the PAI is able to differentiate HCMs from CMs and controls.

The utility of phallometric measures in the assessment and treatment of sexual offenders has become controversial. There is evidence for and against the ability of phallometric measures to discriminate between normal and offender populations (1-4). Nevertheless, the evidence for the usefulness of phallometrics within groups of men who have been convicted of extrafamilial child sexual abuse is more substantial. A recent meta-analysis suggests phallometric assessment is one of the most reliable predictors of recidivism for child molesters (5).

There are a variety of ways to rate deviant sexual arousal with phallometry. Perhaps the most common method is to calculate indices reflecting relative sexual arousal or sexual preference to auditory descriptions of various types of sexual activity with various types of partners/victims (3, 6-8). Two such indices are the Pedophile Index (PI) and the Pedophile Assault Index (PAI). The PI is typically calculated by dividing the highest phallometric response to descriptions of "consenting" sex with a child by the highest phallometric response to descriptions of consenting sex with an adult. The PAI is typically calculated by dividing the highest phallometric response to descriptions of coercive sex, sadistic sex, or nonsexual assault of a child by the highest phallometric response to descriptions of "consenting" sex with a child. PI values of greater than 1.0 are said to reflect a preference for children as sexual partners/victims over adults, although scores of .90 are generally considered to be of clinical concern. Similarly, PAI values of

greater than 1.0 are said to reflect a preference for coercive sex, sadistic sex, or nonsexual assault of a child over consenting sex with a child.

The PI and the PAI also appear to be useful in distinguishing between various groups of CMs. One study reported that over half of the pedophiles and almost all of the incest offenders they examined had PI scores greater than 1.0 (9). That is, both groups showed deviant preference for descriptions of "consenting" sex with children relative to consenting sex with adult females. The PAI appeared to be much better at discriminating between these two groups. Six of the eight more dangerous pedophiles had PAI scores greater than 1.0 whereas none of the less dangerous incest offenders had PAI scores greater than 1.0. However, the small sample size precluded statistical analyses. This study was replicated using a larger sample of violent and nonviolent CMs (10). The more violent CMs exhibited higher PAI scores than the less violent CMs (no PI evidence was reported).

There has been a paucity of research regarding sexual arousal patterns of homicidal sexual offenders (HSOs). It has been suggested that many HSOs focus on sexually sadistic acts to achieve arousal, and that this may be their major distinguishing feature (11-14). In support of this contention, one study found that HSOs showed the greatest deviant phallometric responses to sadistic stimuli compared to nonsexual murderers and nonhomicidal SOs (14). Consistent findings come from our clinic in which we compared incest offenders and a mixed group of HSOs (i.e. adult and child victims). The results revealed that there was no difference between the groups in terms of the PI, but HSOs had higher PAI scores than incest offenders, reflecting a greater preference for descriptions of assaultive acts with children (15). In a follow-up study examining

homicidal child molesters (HCMs) and CMs we found, once again, that HCMs and CMs did not differ on PI scores but HCMs had higher PAI scores than CMs (16).

In summary, previous research has provided evidence that the PI can discriminate between CMs and controls and that the PAI can discriminate between HCMs and nonhomicidal CMs. However, in most previous studies utilizing the PAI sample sizes have typically been small and control groups have not been included. The present study was conducted to gather more information on the role of deviant sexual arousal in the assessment of sex offenders. It compared HCMs, CMs, and a group of normal control men. Both a Pedophile Index (PI) and Pedophile Assault Index (PAI) were calculated for each participant.

METHOD

Participants

Participants were 31 homicidal child molesters (HCMs) who had committed or had attempted a sexually motivated homicide, 189 nonhomicidal child molesters (CMs), and 47 normal-controls. All participants were male, at least 18 years old, and were assessed at the Royal Ottawa Hospital Sexual Behaviours Clinic (SBC) between 1982 and 1992. HCMs and CMs had committed nonincestual sexual offenses against a female and/or male child under 16 years of age, were 18 years of age or older at the time of their offense, and were assessed as part of their adjudication or sentencing process. The control group was recruited through an advertisement and paid a 50 dollar honorarium. Controls had no criminal record or serious psychiatric or medical history, and self-reported that they had never committed a sexual offense.

Procedure

The assessment process at the SBC routinely included several components. During interviews by staff psychiatrists, participants' 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 behaviour, family historical features, and history of physical violence were also collected.

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 with 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 are presented here. The audiotapes consisted of 120-second vignettes which described sexual activities varying in age, gender, and degree of consent, coercion, and/or violence portrayed (17). 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 2-min duration for each of three categories: (a) consenting sex with adult female, (b) rape of adult female, (c) nonsexual 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 (nonphysical 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.

RESULTS

As indicated in Table 1 the analyses of the demographic characteristics revealed that HCMs, CMs, and controls did not significantly differ on Age or IQ. In addition, the t-tests revealed that CMs had significantly higher PIs than controls. To further examine the ability of the PI to discriminate between these three groups, a chi-square was performed on the percentage of men within each group with PI scores equal to or greater than 1.0. Significantly more HCMs and CMs had PI scores above 1.0 relative to controls, but HCMs and CMs did not differ from each other. T-tests on the PAI revealed that HCMs had significantly higher scores than both CMs and controls, who did not differ from each other. The chi-square results on the percentage within each group to have a

PAI score equal to or greater than 1.0 revealed that significantly more HCMs than both CMs and controls had PAI scores equal to or greater than 1.0 and that CMs and controls were not significantly different from each other.

Analyses of PI and PAI scores within each of the three offender groups are presented in Table 2. T-tests indicated that, of the three groups, only the child molesters exhibited a difference between their PI and PAI scores. The PI scores of the CMs were significantly higher than their PAI scores. No other significant differences were found.

DISCUSSION

In general the results of the present investigation are consistent with the speculations concerning the role of deviant sexual arousal with homicidal sex offenders (11-15). They also support the contention that phallometric assessment is a useful tool in work with men who are sexually attracted to children (18-20).

In the present investigation CMs had significantly higher PI scores than the HCM and the normal-control men. Even though the mean PI of the HCMs was not significantly different from the controls, it is clear that within the population of HCMs a significantly greater number of these men had PI scores of 1.0 or greater. The same was true for the CM group. As one might speculate, the mean PAI scores of the HCMs was significantly greater than the other two groups, as was the proportion of HCMs with PAI scores of 1.0 or greater. In fact, it appears that, as far as the PAI is concerned, the sexual arousal manifested by the CMs was not different from the normal comparison group. The comparison of PI and PAI scores within the three groups is particularly instructive in this regard. The mean PI score of the CMs was significantly higher than their PAI score. Taken together this suggests that, as a group, men who have committed nonviolent sexual

offenses against children may derive little sexual pleasure from depictions of clearly assaultive acts against children. On the other hand, HCMs seem to be equally aroused by assaultive and non assaultive depictions in which children are victims.

Although the overall results of the present investigation support theory and previous reports, it is important to note that neither the PI nor PAI were as sensitive as one would like. Approximately 50% of the HCMs and CMs did not exhibit more sexual arousal to child stimuli compared with adult stimuli (i.e., PI scores less than 1.0). Furthermore, some 37% of the HCMs did not demonstrate sexual arousal on the PAI. The relatively large number of subjects utilized argues for the veracity of this finding. It is possible that the assignment of subjects based on offense history (e.g. CM or HCM) results in groups of offenders that are far from homogeneous. Clinical experience has demonstrated that many CMs, especially those with only a one-time offense history, may not be particularly sexually interested in children. Rather, their offense may have been opportunistic and involved drugs as a disinhibiter. It is also evident that in some cases men have murdered or attempted to murder children after sexually abusing them only when they became frightened about the possibility of being reported. Sometimes, even though no less devastating, this occurs in a thoughtless panic. Alternatively, a participant's true sexual preferences may be masked by faking. Given the consequences of showing sexually deviant responses, this is easily understood (21, 22). Future research on the utility of phallometry should consider the inclusion of other categories, such as sadistic offenders designated by DSM-IV diagnoses, in the evaluation process. Another reasonable distinction is that related to repeat or predatory offenders as opposed to opportunistic offenders.

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Table 1

Comparison of Demographic Characteristics and Phallometric Responses of Homicidal Child Molesters (HCM), Child Molesters (CM), and Controls

	HCM (a)	CM (b)	Control (c)	Contrasts (t or χ^2, df)		
	Mean ± SD (n)	Mean ± SD (n)	Mean ± SD (n)	a vs. b	a vs. c	b vs. c
Age	37.19 ± 10.45 (31)	36.74 ± 11.53 (189)	33.17 ± 9.51 (47)	-0.21 (218)	-1.76 (76)	1.96 (234)
IQ	98.67 ± 15.57 (21)	90.58 ± 17.31 (98)	94.77 ± 9.26 (47)	-1.98 (117)	-1.29 (66)	-1.55 (143)
Phallometric Indices						
Pedophile Index	0.99 ± 0.79 (27)	1.14 ± 1.15 (180)	0.71 ± 0.77 (47)	0.65 (205)	-1.50 (72)	2.42 (225)*
PI ≥ 1.0	51.9% (14/27)	46.7% (84/180)	27.7% (13/47)	0.25 (1)	4.33 (1)*	5.50 (1)*
Pedophile Assault Index	1.07 ± 0.64 (27)	0.77 ± 0.67 (178)	0.77 ± 0.61 (47)	0.53 (203)*	-2.03 (72)*	0.03 (223)
PAI ≥ 1.0	63.0% (17/27)	39.9% (71/178)	36.2% (17/47)	5.10 (1)*	4.96 (1)*	0.22 (1)

Note. *$p < .05$.

Table 2

Within-Group Comparisons on Pedophile Index and Pedophile Assault Index

	Pedophile Index	Pedophile Assault Index	df	t or χ^2
Group				
Homicidal CM	0.99 ± 0.79 (27)	1.07 ± 0.64 (27)	26	0.40
Index ≥ 1.0	51.9% (14/27)	63.0% (17/27)	1	2.10
CM	1.13 ± 1.15 (178)	0.77 ± 0.67 (178)	177	-3.81**
Index ≥ 1.0	46.1% (82/178)	39.9% (71/178)	1	0.01
Control	0.71 ± 0.77 (47)	0.77 ± 0.61 (47)	46	0.38
Index ≥ 1.0	27.7% (13/47)	36.2% (17.47)	1	1.33

Note. **p<.0001

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