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Predictors of Recidivism in a Population of Canadian Exhibitionists: Psychological, Phallometric, and Offence Factors.

© Sharon R. Rabinowitz Greenberg

Dissertation submitted to the School of Graduate Studies and Research

of the University of Ottawa

in partial fulfillment of the requirements for

the degree of Doctor of Philosophy

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Abstract

Exhibitionism is an understudied paraphilia despite high prevalence, comorbidity and recidivism rates. 221 Exhibitionists were assessed at a University Psychiatric Hospital Outpatient Sexual Behaviors Clinic between 1983 and 1996 using a standardized assessment battery. Research data were archival, extracted from the participants' medical files, with the exception of the Psychopathy Checklist-Revised, which was administered retrospectively by the investigator. Offence data were provided by the Canadian Police Information Center.

The three part study describes and compares the Exhibitionist population with both a Normal Contrast and a Rapist Contrast group on the standardized assessment battery; examines predictors of sexual, violent and criminal recidivism in this population of exhibitionists, including demographic and historical variables, psychological and phallometric measures and offence histories; and explores differences between Hands-On and Hands-Off sexual recidivists on the same variables.

Exhibitionists emerged as less pathological than Rapists. They were more likely married, denied their index offence, and reported a family history of drug abuse; and were less likely to report personal histories of drug abuse, intoxication at the time of the offence, a family history of physical abuse, family violence and outside placement before 16 years. Exhibitionists and Rapists reported poorer sexual functioning and more cognitive distortions than Normals. Exhibitionists were more deviant than Normals in their phallometric responses to scenarios of children.

Survival analyses indicated that over a mean follow-up time of ± 6.84 years post assessment, 11.7, 16.8 and 32.7% of Exhibitionists were charged or convicted with a sexual, violent, or criminal offence respectively. Compared to Non-Recidivists, Sexual Recidivists were less educated, more likely single and to report intoxication at the time of the index

less educated, more likely single and to report intoxication at the time of the index offence; demonstrated higher Brief Psychiatric Rating Scale scores, and more prior sexual and criminal offences. Compared with Non-Recidivists, Violent Recidivists were less educated, more likely single and to report intoxication at the time of the index offence; had lower Derogatis Sexual Functioning Inventory scores, higher Psychopathy Checklist-Revised Total scores, and more prior sexual, violent and criminal offences. Compared to Non-Recidivists, Criminal Recidivists were younger, less educated, more likely single and to report intoxication at the time of the index offence. They had lower Derogatis Sexual Functioning Inventory scores, and higher Psychopathy Checklist-Revised Total scores. They demonstrated higher Pedophile Indices on phallometrics and more prior sexual, violent and criminal offences. For Sexual and Violent Recidivism respectively, the variable 'Number of Sexual Offences Prior to the Index Offence' correctly classified 89.6 and 84.6% of the original groups, representing a RIOC of 13.4 and 10.8% respectively. For Criminal Recidivism a combination of the variables Education Level and Number of Prior Criminal Offences correctly classified 71.8% of the original group, representing a RIOC of 20.5%.

An exploratory comparison indicated that compared to Hands-Off Sexual Recidivists, the Hands-On Sexual Recidivists demonstrated higher Psychopathy Checklist-Revised Total scores, more deviant Pedophile and Rape Indices on phallometrics, more prior violent and criminal offences, and a trend towards more prior sexual offences. The Rape Index correctly classified 78.9% of the original group, representing a RIOC of 34%.

The study is instructive in its delineation of factors placing exhibitionists at risk of re-offence, particularly hands-on sexual offences, and is valuable for court sentencing and treatment.

Introduction

Exhibitionists are an understudied group of paraphilias. A computerized literature review using Medline and Psych-info (1966-1994) yielded only one book (Cox & Daitzman, 1980), and a few book chapters and journal articles in the area. This is markedly limited when compared with the extensive literature focusing on other sexual offences such as child molestation and rape (Quinsey, Lalumiere, Rice, & Harris, 1995). Furthermore, the many theories of this disorder are fraught with variances (Freund, 1990; Karpman, 1954). Consequently, Exhibitionism has being referred to as a 'clinical conundrum' (Snaith, 1983), with several researchers concluding that the behavioral act does not signify a homogeneous population (Rooth, 1971; Snaith, 1983). Additionally, the absence of studies that examine factors that may predict recidivism, especially factors amenable to treatment, has been identified in the literature (Murphy, 1997). Such issues are of particular concern considering the high prevalence and recidivism rates of exhibitionism (Marshall, Eccles, & Barbaree, 1991a), its comorbidity with other paraphilias including the hands-on sexual offences (Abel, Becker, Cunningham-Rathner, Mittelman, & Rouleau, 1988), and the potential dangerousness of exhibitionists (Sugarman, Dumughn, Saad, Hinder, & Bluglass, 1994).

The ensuing investigation is a response to this paucity of information identified in the sex offender literature. As an introduction, issues specific to Exhibitionism are examined, including prevalence, definition, characteristics of victim and perpetrator, comorbidity, predictors of recidivism, and the exhibitionist's rape-proneness. In addition, general theoretical issues surrounding recidivism, risk assessment and prediction research are raised. This is followed by the current investigation into the predictors of recidivism in a Canadian population of Exhibitionists. In this three part study, a population of Exhibitionists will be described and compared with a

Rapist and Normal Contrast group; the relationship between Sexual, Violent and Criminal Recidivism respectively and the demographic, historical, psychological, physiological and offence characteristics of Exhibitionists will be investigated; and the differences between those Sexual Recidivists, within the Exhibitionist group, who subsequently performed hands-on sexual offences and those who subsequently performed hands-off sexual offences will be explored.

Prevalence

With regard to prevalence, the frequency of Exhibitionism appears to be very high (Marshall et al., 1991a). Official records indicate that Exhibitionism accounts for from one- third (Rooth, 1973; Smukler & Schiebel, 1975) to two-thirds of all sex offences (Gebhard, Gagnon, Pomeroy, & Christenson, 1965) in England and Wales, the United States and Canada (Rooth & Marks, 1973; Smukler & Schiebel, 1975). A survey of psychiatrists in 40 countries, 24 of whom responded, indicated that this high frequency may be unique to Western cultures (Rooth, 1973), and that Exhibitionism is virtually unknown to Asian and African psychiatrists. However, more recent data from Taiwan and Hong Kong, in which female college students were sampled (Cox & Sang, 1979, cited in Cox, 1980), suggests that the incidence of Exhibitionism is much higher in the East than Rooth's data suggests. Exhibitionists, reportedly, constitute 25% of all paraphilics seeking outpatient treatment, with a median number of fifty acts per exhibitionist (Abel et al., 1988). Furthermore, of all the victims of paraphilic acts, 37% are victims of exhibitionists (Abel & Osborne, 1992). Approximately one-third of U.S. female college students, with a mean age of 20 years, reported having been exposed to in their past (Cox & McMahon, 1978). Results of a National Population Survey indicated that about 14.3% of Canadians reported having been victims of at least one act of exposure during their lifetime, with females (19.7%) twice as likely

as males (8.9%) to have been victimized in this way (Badgely et al., 1984). In addition, acts of exposure, not followed by an assault, were found to constitute a 'sizeable' proportion of all sexual crimes committed against children and youths in Canada (Badgely et al., 1984).

Definitions

The various definitions of exhibitionism are too numerous to list. All definitions involve the partial or complete exposure to others of the male genitals, particularly the penis, at times and places that are considered 'interpersonally inappropriate' (Blair & Lanyon, 1981). Definitions of 'interpersonally inappropriate' tend to involve lists of exclusions, such as during mutual sexual intimacy, medical examination, or in a formal nudist colony. Public urination, sometimes offered as an explanation by exhibitionists, needs to be ruled out, because it is viewed as non-sexual even if inappropriate. Some definitions specify that the genitalia are exposed by adult males to females (Gebhard et al., 1965). Others make no reference to the victim's gender (American Psychiatric Association, 1994). The element of sexual relevance and direct or indirect sexual gratification for the exhibitionist are usually, though not always, indicated or implied. Gebhardt et al. (1965) noted that there are some exhibitionists who are not conscious of any sexual pleasure when exhibiting, such as certain 'neurotic compulsives' and some persons extremely intoxicated. They do however, include these cases in their definition on the assumption that the underlying motivation, whether conscious or not, was largely sexual. Definitions differ as to whether erection must be present, while in some definitions the act may also involve masturbation.

Definitions tend to differ according to whether exhibitionists are discussed in a clinical, societal, legal or moral context. The definition outlined in the DSM IV (American Psychiatric Association, 1994) specifies the necessary criteria for a psychiatric diagnosis of Exhibitionism:

"A. Over a period of at least six months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving the exposure of one's genitals to an unsuspecting stranger.

B. The fantasies, sexual urges, or behaviors cause clinically significant distress or impairment in social, occupational, or other important areas of functioning" (American Psychiatric Association, 1994, p. 526).

Official offence categories in general, are often exceedingly broad, resulting in very dissimilar acts falling into the same category (Furby, Weinrott, & Blackshaw, 1989). This is true of the Canadian legal definitions of exhibitionism. Section 173 of the Canadian Criminal Code, under which acts of genital exposure are typically charged, states that it is a criminal offence to commit an indecent act 'in a public place in the presence of one or more persons, or in any place with intent thereby to insult or offend any person'. No definition is given as to the exact nature of the type of act which may insult or offend another person. Section 173 of the Criminal Code applies to very different sorts of behavior, for example, running naked down a city street as a prank (streaking) or baring one's buttocks as a prank (mooning). Under the terms of this section, perpetrators and victims of such acts may be males or females. In the past, Exhibitionists were also charged with the offence of 'gross indecency', under Section 157 of the Criminal Code, which was repealed in 1985. With respect to the listing of offences in police general occurrence records, it cannot therefore be assumed that the offence of 'indecent act' is synonymous or interchangeable with an act of exposure having been committed. The National Police Force Survey found that not all acts of exposure are identified by police as indecent acts, and conversely, charges of indecent act may include other types of sexual behavior besides exposure

(Badgely et al., 1984).

According to some definitions, an exhibitionist is a male for whom the act of exhibition is a desired end in itself (Gebhard et al.,1965). The act does not involve physical contact between the offender and victim, and there is usually some distance between them. Accordingly, the exhibitionist does not intend to touch or sexually molest his victims (Badgely et al., 1984). Certainly, some exhibitionists hope that their display will sexually arouse the victim and result in some mutual sexual activity, but this is only a subsidiary motivation. The exhibitionist however, is aware that this is a hope rather than an expectation. It is suggested that part of the gratification that they are believed to seek derives from the reactions of their victims which may range from annoyance and surprise to shock and fear (Badgely et al., 1984).

This concept of exhibitionism however, is a contentious one. Sugarman et al. (1994) contend that the literature on exhibitionism is confounded by unrealistic definitions of the disorder which exclude genital exposure with any intention, invitation, or attempt at closer contact, for example, those of the World Health Organization (1992) and the American Psychiatric Association (1994) cited above. Sugarman et al.'s (1994) contention is particularly pertinent when one considers that the intentions of offenders are often unknown since many are not apprehended, and the sequence of events is often interrupted by the reactions of victims or detection by other persons (Badgely et al., 1984). The potential of exhibitionists to commit sexual assault will be discussed further.

Characteristics of Victims

The range of victims' ages varies across studies. Research findings indicate that between one in five and one in two victims of exhibitionism are children of all ages, including some very

young children. Findings of the Canadian National Population Survey indicate that five in six victims of acts of exposure were children or youths, when they were victimized for the first time. Accumulatively, about half of the victims were under 16 years, two in three were under 18 years, and five in six were under 21 years (Badgely et al., 1984).

In terms of gender, females are predominantly the victims of acts of exposure in the three national surveys of the public services of Canada. Findings indicate that between one in six (17.5%) and one in nine (10.7%) victims of acts of exposure not followed by an assault were males (Badgely et al., 1984).

Furthermore, although most acts of exposure reported to the police were committed by strangers, the identity of the suspected offenders was known in a "larger number of incidents than is often assumed" (Badgely et al., 1984, p.250).

Characteristics of Exhibitionists

Several studies have attempted to profile exhibitionists. Karpman (1954) reviewed earlier studies on exhibitionism, and identified the following group characteristics: timidity, lack of aggressiveness, perceived inferiority, and heterosexual immaturity. He reported the compulsive character of the exhibitionistic act, reported histories of frequent masturbation and a tendency toward general criminality, and noted a particularly puritanical attitude in the home regarding sexual matters (Karpman, 1954). The major studies prior to the early 1950's, however, lacked the experimental rigor that might be expected of more recent work (Blair & Lanyon, 1981).

Blair and Lanyon (1981) reviewed nine subsequent studies (Ellis & Brancale, 1956; Frisbie & Dondis, 1965; Gebhard et al., 1965; Hackett, 1971; Mohr, Turner & Jerry, 1964; Radzinowicz, 1957; Rooth, 1973; and Smukler & Schiebel, 1975) which investigated the characteristics that

differentiate exhibitionists. Data in these studies were generally collected from prison and court clinic records, psychiatric evaluations, interviews and questionnaires, and occasionally from administering standard psychological tests or specially prepared instruments. Most of the subjects had been arrested and convicted of sexual offences and were either in prison or receiving evaluation and treatment as ordered by the courts. Such subjects are an unrepresentative sample of the general sex offender population, which limits the generalizations that can be made from the data (Ellis & Brancale, 1956). Despite the methodological shortcomings, the major findings summarized by Blair and Lanyon (1981) are worth noting. The age of onset of exhibitionistic behavior had a bimodal distribution with peaks during the mid-teens and early to mid-twenties. Onset appeared to be correlated with interpersonal stresses of various types and situations. Mean intelligence, educational level and vocational interests did not appear different from the general population distribution. With regards to marital status, most exhibitionists (median 62%) were or had been married, with 'poorer than average' marital and sexual adjustment.

The Exhibitionists in these studies reported a substantial frequency of single parent families of origin, were closer to the mother than father in two-parent families, and reported ambivalence towards one or both parents, inconsistent discipline, a lack of affection and marginal socialization training. However, Frank (1965) and Jacob (1975) (in Blair & Lanyon, 1981) reviewed studies of these factors in the families of schizophrenics, neurotics, and sociopaths, and concluded that these factors did not reliably distinguish these groups from each other or from normals.

Previous sex offences were above average in number and included offences other than exhibitionism. Their criminal histories of non-sexual offences appeared to be greater than average,

indicating that they tended to have trouble with societal limits and internal controls (Blair & Lanyon, 1981).

With regard to the incidence of psychopathology, although the nonspecificity of diagnostic criteria and the lack of empirical controls limited the conclusions that can be drawn, the data suggest that few of these exhibitionists were 'overtly disturbed' (Blair & Lanyon, 1981), and that as a group, they were often characterized as timid, unassertive individuals who were lacking in social skills and had difficulty recognizing and handling aggression and hostility (Blair & Lanyon, 1981).

Levin and Stava (1987) reviewed the research utilizing personality inventories to assess the personality characteristics of exhibitionists (Forgac & Michaels, 1982; McCreary, 1975; Rader, 1977; Smukler & Schiebel, 1975). Two types of exhibitionists emerged: the 'pure' and the 'criminal' type. The majority of exhibitionists emerged as the 'pure' type, demonstrating a normal profile on the Multiphasic Personality Inventory (MMPI) or California Personality Inventory (CPI). The 'criminal type' evidenced elevations on the Psychopathic Deviant (Pd) and Schizophrenic (Sc) subscales on the MMPI, indicating more pathological deviance and less socialization compared to the 'pure' type's oversocialized, inhibited, passive and conforming profiles. The 'criminal type' evidenced low scores on the Responsibility (Re) and Socialisation (So) scales on the CPI. These findings, are however, not unique to exhibitionists and are reportedly a feature in the profiles of most criminals (Forgac & Michaels, 1982).

Gebhard et al. (1965) compared the sexual histories of exhibitionists with those of eleven other sex offender groups. While exhibitionists experienced the same amount of prepubertal sex play as the other groups, they reported the second highest frequency (12%) of prepubertal sexual

overtures from an adult female that did not lead to coitus. They reported normal sex dreams and nocturnal emissions, but comparatively less heterosexual petting as adolescents and less petting to orgasm at any age, suggesting deficiencies in heterosexual socialization. Forty-one percent had masturbated before puberty; with only the control and incest groups lower. Postpubertal masturbation was reported as normal. However, as adults, both married and unmarried exhibitionists masturbated to orgasm at an above average rate, suggesting a lack of gratification from coitus and difficulty in sexual adjustment. Compared with the other groups, they reported the highest frequency (29%) of unusual masturbation fantasies, mostly involving exhibiting. The married exhibitionists ranked fourth of the groups in frequency of coitus with their wives, thus reducing the argument of sexual deprivation as a motivation for masturbation. They ranked second to last to the homosexual group in the proportion of total sexual outlet derived from marital coitus, the emphasis again being on masturbation. Most however, rated their marriages as generally happy.

In summary, the sexual histories of exhibitionists revealed deficits in heterosexual skills and a lower than average frequency of heterosexual activity, with masturbation playing a more important role in their sexual activity than for any other group.

Comorbidity

Studies on the comorbidity of the paraphilias highlight the potential dangerousness of exhibitionists. In his investigation of a cohort of 411 paraphilics, Abel, Mittleman, and Becker (1985) reported a large number of associated paraphilias amongst the pedophiles and rapists, with 29% of 232 pedophiles and 29% of 89 rapists respectively being exhibitionists. In a later study, Abel et al. (1988) found that 93% of 142 sex offenders with exhibitionism had other paraphilias

such as pedophilia, voyeurism, or rape. For example, 46% of exhibitionists had sexually assaulted girls outside the family, others had sexually assaulted boys or committed incestuous pedophilic offences, and 25% had committed rape. In another study, Freund (1990) found that 19% of exhibitionists had committed rape. Methodological differences between these studies possibly explain these discrepancies. The major drawback of all these studies however, is a likely bias towards serious offenders, as many of those with exhibitionism first came to notice for offences involving physical contact.

The DSM 111-R (A.P.A., 1987) and DSM IV (A.P.A., 1994) classification systems have restricted criteria for 'pedophilic disorder' and employ the term 'pedophile' for offenders meeting these criteria. These criteria include sexually arousing fantasies or urges and sexual behavior with only prepubescent children. Many researchers prefer the broader generic term 'child molester' which incorporates any sexual act performed with a child under the legal age which is usually 16 years. This term includes sexual acts with both prepubescent and parapubertal children and does not require the criteria of sexually arousing fantasies or urges. In the ensuing thesis the term used in the original source will be quoted. This researcher will however employ the term child molester.

Gebhardt et al. (1965) compared the offence histories of exhibitionists with those of the other sex offender groups. Findings indicated that 72% of all the exhibitionists' convictions were for sex offences. They ranked second to the 'aggressive offenders against children' in their average number of convictions per person (4.3); and were first in their average number of misdemeanors resulting in imprisonment (12.5). Exhibitionists demonstrated the highest sex offence rate per person (3.1). Besides acts of exposure, their other sex offences were generally heterosexual in nature and included offences with unwilling females (33%), using force with

unwilling females (20%), and voyeurism (16%). They ranked second highest with regard to a history of one conviction (13%), and third highest (16%) with regard to a history of seven or more convictions (Gebhardt et al., 1965).

Drawing on the comorbidity literature, Freund (1990) hypothesized that it is useful to conceive of human sexual behavior as proceeding in roughly four phases: i) location and initial appraisal of a potential partner; ii) pretactile interaction (e.g., smiling at, posturing for, or talking to a prospective partner; iii) tactile interaction (e.g., embracing, petting); and iv) effecting genital union. A particular class of erotic anomalies may be seen as distorted counterparts of the four normal phases: i) voyeurism; ii) exhibitionism and obscene telephoning; iii) toucheurism and frotteurism; and iv) the preferential rape pattern. Freund and Blanchard (1986) presented data to show that two or more of these anomalies are often found in the same individual, suggesting the existence of a discrete syndrome which may be described as a courtship disorder. For example, according to the self-reports of 86 exhibitionists, 33% had perpetrated voyeurism or obscene phone calls, and 22% had engaged in the contact sexual activities toucherism, frotteurism or rape. This supports the contention that some exhibitionists have the potential to commit sexual assault.

Until recently, no predictive work had been done among male genital exhibitionists (Sugarman et al., 1994). Various possible reasons may account for this phenomenon, including the common contentions that exhibitionists do not generally go on to commit more serious offences (Gebhard et al., 1965), or that they are generally harmless (West, 1987). Walker and McCabe (1973) argue however, that a record of indecent exposure is no guarantee of harmlessness, citing cases in their own study and in the Cambridge study of offenders convicted in

1947, in which half of the indecent exposers had a previous indecent assault conviction (Radzinowicz, 1957). In a 25 year follow-up study, Grassberger (1964) recorded that 12% of a large sample of indecent exposers in Austria were later convicted of rape, while Rooth (1973) found that contact sex offences committed by 30 persistent exhibitionists were mostly of a less violent form or directed toward children. The association of exhibitionism and sexual assault in these studies is based on statistical analyses of unique and atypical samples, and generalizations must therefore be made with caution.

Rooth (1971) reviewed previous literature on exhibitionism and hypothesized a simple typology: type I, the inhibited, flaccid exposer; and type II, the sociopathic, erect exposer. The latter type of exhibitionist is presumably more likely to commit serious offences.

The findings of the Committee of Sexual Crimes against Children (Badgely et al., 1984) support the contention that some exhibitionists are likely to commit more serious sexual offences. The report states that in a small proportion of instances, acts of exposure are followed by a sexual assault against a child or youth, and that if this ratio is prorated to the Canadian population, then 'a sizeable number of Canadian children' (Badgely et al., 1984, p.271) are likely to be at risk of being victims of these types of offences.

Theories of Sexual Aggression

Various univariate models of sexual aggression have been proposed in attempts to describe, understand and treat sexual aggressors. An example of the univariate models is the 'physiological model' based partly on the finding that some sexual offenders exhibit equal or greater genital arousal to rape stimuli than to consenting stimuli. Another univariate model is the 'cognitive-behavioral' model which emphasizes the importance of individual cognitions. A unique

aspect of this model is that it contains the temporal sequence of affect → fantasy → conscious plan → behavior that presumably leads to sexually aggressive behavior toward children. A third univariate model is the 'sociobiological model' which emphasizes biological variables that are assumed to have an evolutionary basis (Ellis, 1989). Univariate models have been criticized for taking a narrow perspective of this behavior, stressing their own preferred processes, while other complex multivariate models are population-specific and multicausal (Marshall & Barbaree, 1990). Marshall & Barbaree (1990) contend that a proper understanding of sex offending can only be attained when these diverse processes are seen as functionally interdependent.

Recognizing the valuable components in each model, and the need for a parsimonious theory, Hall and Hirschman (1991) developed a 'quadripartite model' of sexual aggression that incorporates these into a unified conceptual framework for understanding the motivational factors unique to various subtypes of perpetrators; and for identifying the most salient etiological factors of sexual aggression and in treating the perpetrators. This model is sufficiently flexible to account for the various sexually aggressive modes of expression. Their analysis of the various univariate models of sexual aggression suggest that various combinations of physiological, cognitive, affective, and personality factors may be more or less prominent as etiological factors depending on the typologies of the aggressor and the act.

According to this model, the first factor to motivate sexual aggression is physiological sexual arousal. The second is cognitive appraisals (e.g. rape myths; negative perceptions of woman) or justifications concerning the potential victim which may be conditioned through cultural or social processes. These tendencies may be compounded by alcohol use, which is often appraised as an excuse for sexual aggression. The third factor that would facilitate sexual

aggression is 'affective dyscontrol' (Hall & Hirschman, 1991, p.664). Often negative affective states precede cognitive sequences that lead to sexually aggressive behavior. Whereas these affective states may be primarily depressive states in pedophiles, anger and hostility are more likely to be the negative affective states that facilitate sexual aggression against adults. It is the expression of these states that is indicative of affective dyscontrol. Hall and Hirschman (1991) believe that an antagonistic process between the motives to satisfy or to inhibit certain affective states (e.g. anger, hostility) is a mediator of sexually aggressive behavior. These states are usually sufficiently inhibited such that sexual behavior is expressed only under appropriate circumstances. However, sexually aggressive behavior occurs when these affective states become so compelling and powerful that they overcome inhibitions (e.g. guilt, moral conviction) that typically prevent the expression of the behavior. These three factors are primarily state and situation dependent in that they tend to be circumscribed and contiguous to sexually aggressive acts.

However, in some cases more enduring trait variables may interact with these three factors to facilitate sexual aggression. Early experiences, including parental divorce, large family of origin, presence of parental or sibling criminal history, parental neglect, and parental physical or sexual abuse, may create lasting personality problems that increase the likelihood of later sexual aggression. Sexual aggression is inhibited by positive early socialization experiences or facilitated by poor socialization experiences, including inappropriate forms of punishment, abuse, and neglect. Other developmental factors, including low levels of education, impaired social skills, and low occupational status may also increase the likelihood of sexually aggressive behavior. For example, sexually aggressive persons tend to be less socially skilled than are persons who are not sexually aggressive. Typically, sexual offenders against women have been antisocial persons who

often have a history of nonsexual criminal activity and elevations on scale 4 of the MMPI. Difficulties in incorporating the values and standards of society, antisocial behavior, authority problems, family conflicts, and underachievement are all correlates of MMPI Scale 4. Thus, a personality trait factor could account for the chronicity and severity of sexually aggressive behavior that are not accounted for by state factors.

Hall and Hirschman (1991) propose a separate personality component to explain the psychological context in which sexual aggression occurs. Enduring personality problems are characteristic of some criminals, including sexually aggressive offenders, which may result in traits including a selfish, remorseless, and exploitative use of others, as well as a chronically unstable and antisocial life-style (Harpur, Hare, & Hakstian, 1989). This type of sexual aggressor is characterized by a developmentally related personality problem as the most prominent motivational precursor. Chronic problems would characterize this subtype, including intellectual impairment, family conflict, childhood physical or sexual victimization, juvenile delinquency, emotional difficulties, poor social skills, and poor adult adjustment. Chronic substance abuse also would be more prevalent in this subtype than in the others. This subtype would also engage in more general criminal activity and be involved in nonsexual antisocial activity. The general antisocial characteristics of this subtype would result in a relatively high level of violence in the sexually aggressive act. The chronicity of impulse dyscontrol in this subtype is what distinguishes it. This sub-type is characterized by a general tendency to violate rules. The treatment prognosis for this subtype would probably be the poorest of the four subtypes because of chronic antisocial components and multiple problem areas in addition to sexual aggression.

Hall and Hirshman (1991) view physiological sexual arousal, cognitions that justify sexual

aggression, affective dyscontrol, and specific developmentally related personality problems as the critical components that increase the probability of sexual aggression. Environmental factors, such as provocation or alcohol and peer support also may facilitate sexual aggression Rather than composing a separate psychological component for explaining sexually aggressive behavior, environmental contingencies seem to place constraints on a person primed for sexual aggression by specific traits, sexual arousal, cognitive appraisals, and affective dyscontrol. It is the relative etiological contributions of each of these latter four components that may have implications for developing a typology of sexual aggressors.

Hall & Hirschman (1991) believe that sexual aggression is analogous to other complex psychological problems, that have multiple etiological factors but typically one primary precursor. With this in mind and given the heterogeneity of sexually aggressive populations, the relative prominence of the previously described motivational components could be used to define major subtypes of sexual aggressors such that the most potent of the four components within each subtype functions as a motivational precursor. They suggest that the most potent of the four components within each subtype functions as a motivational precursor. A motivational precursor is defined as the most potent of the four components that causes a person to exceed the threshold that usually inhibits sexually aggressive behavior. Whereas the four components in combination increase the likelihood of sexual aggression, the motivational precursor is the primary driving force underlying the typology of the aggressor and the act. The heterogeneity of sexually aggressive persons is accounted for by proposing four subtypes that are identified as a function of the extent to which each precursor serves as a primary motivational factor.

Marshall & Barbaree (1990) also provide a comprehensive multivariate theory describing

factors that are believed to lead to an initial offence. They contend that a proper understanding of sex offending can only be attained when the diverse processes considered in univariate theories - i.e biological influences, childhood experiences, sociocultural context and transitory situational factors - are seen as functionally interdependent. In their view, biological factors present the growing male with the task of learning to appropriately separate sex and aggression and to inhibit aggression in the pursuit of their sexual interests. Biological heritage renders this task difficult, and fluctuating or abnormally high levels of sex steroids may increase the difficulty. However, developmental and other environmental factors appear to play the most important role in shaping the expression of sexual needs and in bringing aggression under control. They consider these under the headings childhood experiences, sociocultural context and transitory situational factors.

Regarding childhood experiences, they contend that the early developmental experiences of boys who later become sex offenders inadequately prepares them for the changes in bodily functioning which occurs in puberty and which initiate a strong desire to engage in sex and aggression. Poor socialization, particularly a violent parenting style, will both facilitate the use of aggression as well as cut the youth off from access to more appropriate sociosexual interactions. Such influences are expected to instill a serious lack of confidence in the adolescent as well as strong feelings of resentment and hostility, feelings and ineptitudes which will not help the adolescent acquire the appropriate inhibitory controls over sex and aggression. Rada (1978) described the typical family background of rapists as a general context of violence and sexual abuse, frequent severe and inconsistent punishment. Langevin et al, (1984) noted the parents of rapists were poor parents, with fathers generally aggressive, drunk and in trouble with the law. Knight, Prentsky, Schneider and Rosenberg (1983) provided evidence that childhood antisocial

behavior, which typically arises in the context of a hostile home environment, leads to a greater likelihood that the adult will commit rape. Similar data are available for exhibitionists (Cox & Daitzman, 1980) and child molesters (Finkelhor, 1984). From this background it is not a surprise that these children become insensitive adults who are concerned only with their own interests and needs; are aggressive, due to modeling the behavior of the parents, and take whatever they want without regard for the rights of others; do not acquire constraints against sexual aggression, and indeed learn to use aggression as a way of solving problems and to secure their wants. These are the sort of personality characteristics and behavioral dispositions commonly found in sex offenders.

Two of the most important outcomes of appropriate parenting are to instill in the boy a sense of self-confidence and a strong emotional attachment to others. Since appropriate adult sexual interactions usually occur within the context of an intimate, loving relationship, then the growing child needs to develop skills essential to attaining such an intimate bond. The degree of interpersonal involvement in sex lies along a continuum, and those males who can only express sexual desires within a context where this is absent are more likely to sexually offend than are those men who find impersonal sex repugnant. The desire for intimacy appears to arise from the development of attachment bonds during childhood .

In summary, according to Marshall & Barbaree's (1990) theory, biological inheritance confers upon males a ready capacity to sexually aggress which must be overcome by appropriate training to instill social inhibitions toward such behavior. Variations in hormonal functioning may make this task more or less difficult. Poor parenting, particularly the use of inconsistent and harsh discipline in the absence of love, typically fails to instill these constraints and may even serve to

facilitate the fusion of sex and aggression rather than separate these two tendencies. Sociocultural attitudes may negatively interact with poor parenting to enhance the likelihood of sexual offending, if these cultural beliefs express traditional patriarchal views. The young male whose childhood experiences have ill-prepared him for a prosocial life may readily accept these views to bolster his sense of masculinity. If such a male gets intoxicated or angry or feels stressed, and he finds himself in circumstances where he is not known or thinks he can get away with offending, then he is like ly to sexually offend depending on whether he is aroused at the time or not. All of these factors must be taken into account when planning treatment of these men.

It is the multivariate models of sexual aggression, such as those developed by Marshall & Barbaree (1990) and Hall & Hirschman (1991), that inform the hypotheses and choice of variables employed in this investigation.

Sex Offender Recidivism

Research on sexual offender recidivism is fraught with methodological problems (Furby et al., 1989). Sample selection, study design, criterion measures, and data analysis all effect the recidivism outcome rates. Criterion measures must define what is meant by recidivism, the follow-up time period in addition to the operational measures, (i.e. the information sources). There is no single best definition of recidivism, with definitions varying according to the specific research question being addressed. For some authors, 'sexual recidivism' is defined as reoffending with the same sex act, while for others it is 'the recommission of any sex offence' (Furby et al., 1989, p.8). Research has confirmed that some sex offenders commit subsequent non-sexual crimes (Rice, Quinsey, & Harris, 1991; Weinrott & Saylor, 1991). Specifically, many exhibitionists are involved in both sexual offences and non-sexual crime (Sugarman et al., 1994). Consequently,

other categories of recidivism such as 'violent recidivism' (both sexual and non-sexual), and 'criminal recidivism' (sexual, violent and any non-violent criminal activity) are relevant (Proulx, Pellerin, Paradis, McKibben, Aubut, & Ouimet, 1997).

Operational measures in the recidivism literature also vary according to the research question. Hypothetically, self-reports of exhibitionists would provide their absolute recidivism rates. Unfortunately, sex offenders are notoriously unreliable historians (Freund, Watson, & Rienzo,1988; Furby et al., 1989). Victim reports too have inherent problems, including failure to report the offence, dropping of charges, and in a few cases the making of false allegations. Therefore, researchers have used official records of criminal charges or convictions as outcome measures. The Canadian Police Information Center (CPIC) maintains statistics for all charges and convictions for all Canadian jurisdictions, and this is an example of an objective measure of recidivism that is currently available. However, the actual number of sex offences is grossly underestimated by official arrest reports. Of those sex offences reported to law enforcement authorities, some are not recorded, and other records may be lost. Also, conviction rates for sex offences are significantly lower than arrest rates, and data on dispositions are sometimes incomplete (Furby et al., 1989). For example, the Committee of Sexual Crimes against Children, (Badgely et al.,1984) found that charges were laid in only one in five reported cases of exhibitionism; while in 43,3% of cases where the identity of the perpetrator was known, factors other than the inability of the child to identify these persons determined whether charges were laid. Furthermore, legal manipulations such as plea bargaining, so common in sex offender cases, renders the relationship between the offence and the eventual conviction charge tenuous. Frequently, the more severe charge is dropped in exchange for a guilty plea to the lesser offence

(Furby et al., 1989). Therefore, broader definitions of recidivism are indicated in sex offender research. Estimates based on arrest records or conviction records should generally be regarded as relative rather than absolute recidivism rates (Greenberg, 1998). For example, an investigation of unofficial local police files by Marshall et al., (1991) yielded recidivism rates that were 2.3 times higher than those revealed by official data. By collapsing the two sets of data, it was estimated that out of a sample of 23 treated exhibitionists 39.1% (n = 9), compared with the official figure of 17.8% (n = 4), were charged or convicted of exhibitionism during a follow-up period of approximately 8.6 years. Among the 21 untreated men in the same study, 57.1% (n = 12) reoffended within the same follow-up period.

Given the varying dynamics of the different sex offences, one might expect to find recidivism rates to vary accordingly (Furby et al., 1989). Unfortunately, the vast majority of studies either do not divide their sample in terms of offender type or do not present recidivism results separately for each type. Those studies that do present data for comparable categories differ in the length of their follow-up periods, rendering comparisons of results problematic. Furby et al. (1989) identified nine North American studies that presented data for comparable categories, five of which give results for exhibitionists and four for pedophiles. There were no discernible patterns across these studies to suggest a consistent difference in recidivism rates for these two offender types, owing in part to the large variability among results for studies of exhibitionists. The recidivism rates yielded by the exhibitionist studies varied from 0% (Maletsky, 1980; Wickramasekera, 1976) to 8% (Hackett, 1971), to 40% (Maletsky, 1980), to 41% (Langevin et al., 1979). Furby et al. (1989) attributed this variability to their relatively small sample sizes, none of which was larger than 37 participants.

Furby et al. (1989) suggest that the best sources of data for comparing different offender types are individual studies whose samples include more than one type and whose results are presented separately for each type. They identified two such studies that present data separately for exhibitionists, pedophiles and rapists. The first study (Frisbie & Dondis, 1965, cited in Quinsey, 1977) yielded recidivism rates of 40.7%, 34.5% and 35.6% for exhibitionists, homosexual pedophiles and rapists respectively, in a one to six year follow-up period; and recidivism rates of 26%, 23% and 30% for exhibitionists, homosexual pedophiles and rapists in a follow-up period of a minimum of 2½ years. The second study (J.J. Peters Institute, 1980) yielded respective recidivism rates of 20.5% and 57.1% amongst exhibitionists; 6.3% and 43.8% amongst pedophiles; and 10.4% and 63.2 % amongst rapists; for a re-arrest for a sexual offence and for a rearrest for any offence respectively, in a ten year follow-up period. In both studies, the recidivism rate for pedophiles tended to be lower than that for the other two offender groups.

Clinical versus Actuarial Risk Assessment

Forensic clinicians are frequently required to appraise the degree of risk that a sex offender poses to the community. These judgments, whether based on clinical intuition, actuarial scores, or a combination of these, often have an important impact on both the liberty of the individual offender and the future safety of the community. Unfortunately, there are relatively few studies on the prediction of reoffending with sex offenders (Hanson & Bussiere, 1998; Quinsey et al., 1995). Moreover, the prediction of dangerous behavior in sex offenders has met with moderate success (Pollock, 1990), although recent improvements in methodology offer some cause for optimism (Monahan, 1981). Furthermore, studies on the predictor variables for specific offender types, such as exhibitionism, are lacking in the literature (Murphy, 1997).

Hanson (1998) suggests that there are currently three plausible approaches to risk assessment: guided clinical, pure actuarial, and adjusted actuarial approaches. In the guided clinical approach, expert evaluators consider a wide range of empirically validated risk factors and then form an overall opinion concerning the offender's recidivism risk based on the offenders' ranking on these factors and the expected base rates for similar offenders (e.g. Boer, Wilson, Gauthier, & Hart, 1997). Some of the best evidence for recidivism risk factors comes from follow-up studies (Furby et al., 1989). An inherent problem in this approach however, is that there is no explicit method of translating combinations of individual risk factors into overall recidivism rates.

In contrast, the pure actuarial approach evaluates the offender on a limited set of predictors and then combines these variables into a total risk score using a predetermined, numerical weight system. The major vulnerability of the current actuarial scales is their lack of comprehensiveness (Hanson, 1998).

The adjusted actuarial approach begins with an actuarial prediction, but expert evaluators can then adjust the actuarial prediction based on the consideration of potentially important factors that were not included in the actuarial measure. In this approach, actuarial instruments can act as both screening instruments and as the 'anchor' upon which to base recidivism estimates (Quinsey et al, 1995). The actuarial scale used should have demonstrated reliability and validity, and the risk factors used to adjust the actuarial predictions should have strong empirical support. Adjusted actuarial predictions have advantages over the other two approaches, given the difficulties in obtaining recidivism rate estimates from the guided clinical approach, and the potential of ignoring potentially important variables in the pure actuarial approach. Consequently, some form of

adjusted actuarial risk assessment can be expected to represent the highest standard of practice in the coming years (Hanson, 1998).

Given that pure clinical judgment has generally proved less reliable than actuarial methods (Quinsey, Rice, & Harris, 1995), the question 'why not rely solely on actuarial approaches (with or without adjustment)?' is raised. One response to this debate is that the research on actuarial measures for sexual offence recidivism has yet to demonstrate a clear superiority to the best clinical assessment methods (Hanson, 1998). Consequently it would be imprudent for a clinician to automatically defer to an actuarial risk assessment without evaluating the validity and relevance of the actuarial tool. As research advances, actuarial measures are likely surpass clinical assessment in their ability to predict sexual recidivism. Until such superiority has been demonstrated, carefully conducted clinical assessment can still provide useful information, especially to guide intervention (Hanson, 1998).

Predictors of Recidivism

One of the difficulties in prediction research is that of base-rates, i.e. the proportion of offenders who are likely to recidivate. Base rates have profound effects on the accuracy that can be achieved in prediction (Quinsey et al., 1995). For example, if the base rate of recidivism for a given population is extremely low, then the best prediction for any offender in that group is that they will not reoffend and that it is useless to attempt to do better by assessing individual cases. Conversely, for a population with an extremely high base rate, the best prediction is that every one will reoffend. Consequently, researchers prefer to use statistics that measure the degree of association between the prediction and the outcome (Hanson, 1998).

Clinicians cannot yet predict with 100% accuracy whether or not an individual offender

will re-offend. However, it is now possible to categorize an individual sex offender into a range of groupings depending on significant risk factors of both a static and a dynamic nature.

Historically, the sex offender's prognosis has been predicted on the basis of retroactively comparing the characteristics of recidivists and non-recidivists. Hypothetically, both static and dynamic types of variables can be used to predict recidivism. Static predictors are fixed and stable characteristics. They permit assessment of risk status only, whereas dynamic predictors permit assessment of both risk status and potential changes in risk status. Examples of unchangeable static predictors include the offender's age at the index offence, marital status at the initial assessment, the onset and multiplicity of the paraphilia, and the prior criminal record. Static factors have been found to correlate with the rate of recidivism in sexual aggressors (Proulx et al., 1997).

The relationship between recidivism and dynamic predictors, (i.e. those characteristics that can change over time) has been investigated in only a few studies (Proulx et al., 1997). Examples of stable dynamic predictors include deviant sexual preferences, the presence of cognitive distortions, and deficits in sexual knowledge or social skills. Examples of acute dynamic predictors include rapidly changing factors such as the influence of alcohol or mood changes. Unfortunately, only a few studies have investigated dynamic predictors, either alone or in interaction with static predictors, and changes in dynamic predictors in the prediction of sexual recidivism (Quinsey et al., 1995). Effective treatment should potentially be able to alter such dynamic factors so that measures assessed pre-treatment would fall outside the normal range, whereas measures assessed post-treatment would fall within a range that is subsequently associated with lower rates of recidivism. Identifying valid, dynamic or non-static predictors is

currently a high priority for research in the field (Abel, Gore, Holland, Camp, Becker, & Rathner, 1989; Hanson & Bussiere, 1993; Proulx et al., 1997).

Because self-reports are highly vulnerable to self-presentation biases (Freund et al., 1988; Hanson & Bussiere, 1998), the assessment of sexual offenders should be supplemented by external sources of information such as collateral information, psychological assessment measures, phallometric assessments and official offence histories. A limited number of factors presumed to have discriminatory power between recidivists and non-recidivists has been investigated to date.

Static Predictors:

Demographic and Historical Variables: Static demographic factors including age and marital status at the time of the offence have been found to correlate with the rate of recidivism in sexual aggressors. In certain studies for example, the recidivism rate emerged as negatively correlated with age in sexual aggressors (Frisbie & Dondis, 1965; Marshall & Barbaree, 1989); and single child molesters had a higher recidivism rate than those who were married (Hanson & Bussiere, 1993; Rice et al., 1991).

Various historical factors presumed to have discriminatory power have received attention from researchers including early life experiences, such as being the victim of sexual or physical abuse, having a dysfunctional family of origin and familial psychopathology. Overall however, there have been few attempts to examine empirically the relevance of these symptoms to sexual recidivism (Hanson & Bussiere, 1993).

Offence histories: Regarding the criminal history of sexual aggressors, data obtained from different studies are concordant (Quinsey et al., 1995b). The probability of sexual recidivism positively correlates with the number of previous convictions for sexual offences. Recidivism rates

were found to be high in sexual aggressors with previous convictions for violent offences or other previous nonsexual convictions (Rice et al., 1990,1991). It has been recommended that risk assessment calculations for the prediction of sexual recidivism should therefore include a past sexual and nonsexual criminal history (Quinsey, et al., 1995).

Dynamic Predictors:

The relationship between dynamic predictors and recidivism has been investigated in only a few studies.

Psychological assessment measures:

Alcohol has been associated with crimes of violence including sexual offences (Allnutt et al. 1996). With regard to anger, Rader (1977) demonstrated that rapists report being angry at women at the time of the offense. Furthermore, Groth (1979) contends that rape fulfills a need for power and the expression of anger. Pithers showed that in 88% of rape and 32% of child molestation there was evidence of generalized anger in the offenders.

According to Frisbie (1969), the recidivism rate is higher in sexual aggressors who abuse alcohol, have unorthodox values, have difficulties in establishing a satisfactory relationship with women and are interested in physically immature females

Symptoms of general psychological maladjustment have also been considered amongst the variables selected for appraisal of recidivism (Hanson & Bussiere,1998). Research indicates that sexual offenders rarely meet diagnostic criteria for major mental illnesses, but they often show signs of low self-esteem, substance abuse problems and assertiveness deficits. Furthermore, poor coping strategies and negative emotional states are often precursors to offending (Marshall et al., 1996).

The cognitive distortions of sexual offenders are considered to be influential in the etiology and maintenance of deviant sexual behavior and are commonly accepted as valid predictors of treatment potential and success, despite the lack of systematic research to support these assumptions (Bumby, 1996). Cognitive distortions related to sexual offending are learned assumptions, sets of beliefs, and self statements about deviant sexual behaviors which serve to deny, justify, minimize, and rationalize an offender's actions. Hence, the perpetrator is able to mitigate his responsibility and make his deviant sexual behavior acceptable, allowing him to continue without the feelings of guilt, anxiety, and shame that often accompany acts which are contrary to societal norms (Abel, Becker & Cunningham-Rathner, 1984). For example, the exhibitionist might justify his exposures as public education to females who have not seen a male's genitals before (Abel,1989). Gore (1988) found that child molesters were more likely than other offenders and normal controls to view children as seductive, wanting sex and able to consent to sex with adults. Recently, comprehensive cognitive-behavioral approaches to the treatment of sexual offenders have been recommend for achieving maximal effectiveness in reducing recidivism for sexual offences such as child molestation and rape (Marshall & Pithers, 1994). In a study assessing the cognitive distortions of child molesters and rapists, Bumby (1996) found that sexual offenders' cognitive distortions were associated with a longer duration of sexual offending and an increased number of victims. While there exist numerous clinical, descriptive and anecdotal reports of these distorted attitudes and beliefs, there are few empirical studies in the literature (Bumby, 1996).

Psychopathy is associated with a constellation of affective, interpersonal and behavioral characteristics such as a profound lack of remorse or guilt and a callous disregard for the feelings,

rights, and welfare of others. Individuals with this disorder are typically described as impulsive, selfish, deceitful, sensation seeking and irresponsible (Cleckley, 1976; Hare, 1991). Hare's Psychopathy Checklist- Revised (PCL-R; Hare, 1991) has been used extensively to assess psychopathy in forensic populations (Brown & Forth, 1997). Sexual aggressors with psychopathic traits have been shown to have high rates of recidivism (Abel et al., 1989; Frisbie & Dondis, 1965; Harris, Rice, & Quinsey, 1993; Wormith & Ruhl, 1986). Recently, data have begun to accumulate regarding the relationship between sexual aggression and psychopathy, as measured by the PCL-R (Brown and Forth, 1997). The PCL-R has emerged as an important predictor of sexual recidivism among offenders released from a maximum security psychiatric facility (Quinsey et al., 1995; Rice et al., 1990), and of violent recidivism (Serin & Amos, 1995) among child molesters (Firestone, Bradford, McCoy, Greenberg, Curry, & Larose, 1998b) and incest offenders (Firestone, Bradford, McCoy, Greenberg, Larose, & Curry, 1999). However, the meta-analysis by Hanson and Bussiere (1998) revealed that psychopathy played a minor role in the prediction of sexual recidivism.

No other psychometric data have been found to correlate with recidivism rates for sexual aggressors (Hanson & Bussiere, 1998). However, the value of psychometric instruments as predictors of recidivism has been poorly investigated. Most studies in the area have been carried out with either outdated psychometric instruments or with instruments not specifically designed for sexual aggressors (Proulx et al., 1997).

Phallometric Assessment Measures: The use of the penile plethysmograph to measure and record sexual arousal follows directly from the sexual preference hypothesis (Barbaree & Marshall, 1988). Accordingly, an individual with a paraphilic disorder acts in ways consistent with

their sexual arousal towards certain cues such as violence, humiliation, non-human objects and certain age-inappropriate subjects. It is important to consider methodological issues when assessing the ability of phallometry to detect sex offenders. With regard to physiological arousal. Abel, Barlow et al. (19977) demonstrated clear differences on phallometric assessment between rapist and nonrapist sexual deviance, a finding which has subsequently been replicated by Barbaree et al., (1979) and Quinsey, (1982). Baxter et al.(1984), however showed no difference in the sexual patterns between rapist and non-rapists. Clearly the usefulness of the assessment of erectile preference has been more useful in evaluating child molester than rapists. Lalumiere and Quinsey (1993) point out that phallometric assessment of deviant arousal is assumed to underestimate sexual interest, particularly in samples of rapists. Despite these shortcomings, phallometric studies have confirmed that deviance indices positively correlate with the outcome recidivism rate for rapists and child molesters (Barbaree & Marshall, 1988; Quinsey & Marshall, 1983; Rice et al., 1991). However, Marshall et al. (1991b) showed that preference to exposing scenarios did not correlate with recidivism and concluded that erectile measures of sexual preferences for exhibitionists were of little use in evaluating their risk to reoffend.

Predictors of Hands-On Sexual Offences

Of specific concern to the present investigation are the still unanswered questions regarding the potential and eventual dangerousness of exhibitionists. The issue of whether exhibitionists subsequently perform dangerous hands-on (contact) sexual offences, including rape, is central to this investigation. A progressive pattern of sex offending over time, from exhibitionism towards increasingly serious offences including child molestation and rape, is familiar to clinicians and anecdotally described in the literature (Macdonald, 1971; Marshall &

Barbaree, 1989; Walker & McCabe, 1973). The probability that significant numbers of sex offenders may present first with exhibitionism before graduating on to hands-on sexual contact offences forms the rationale of this study. The importance of identifying potentially dangerous exhibitionists has been underlined by earlier findings that, for example, 21% of offenders convicted for sexual aggression against women also had convictions for indecent exposure (Gebhard et al.,1965).

Findings of comorbidity and evidence of hands-on sexual recidivism have resulted in interest in the detection of those features of exhibitionism predictive of more serious sexual offending. Petri (1969 in Sugarman et al., 1994) suggested the following predictors in order of increasing seriousness: masturbating during the offence, communicating with the victim, and touching the victim.

Bluglass (1980) reported an 8 year follow-up study on 100 exhibitionists in the United Kingdom, during which time seven were convicted of 'contact' sexual offences. These seven recidivists were characterized by psychiatric problems in childhood, juvenile court appearances, low intelligence, unstable work records, unsatisfactory sexual relationships, uncooperativeness in treatment, and a diagnosis of personality disorder. All seven had prior convictions for sexual offences including indecent exposure. Six had exposed to adult women rather than children. Bluglass (1980) suggested that six of the seven recidivists appeared to resemble the 'type II exposer' hypothesized by Rooth (1971), i.e. the sociopathic, erect exposer, presumably more likely to commit serious offences.

More recently, a larger series, including the 100 cases studied by Bluglass (1980), was investigated (Sugarman et al., 1994). This sample included all 210 cases of indecent exposers

referred to a British Forensic Psychiatry Service over 17 years. Official criminal records were obtained for 177 cases. Of these, 32% were convicted for a 'contact' sexual offence (all sexual offence convictions other than indecent exposure and obscene telephone calls), and 75% were convicted for any offence other than indecent exposure during the follow period for recidivism. A total of over 2000 convictions, mostly non-sexual, were recorded. The majority of these convictions were for property offences, one for attempted murder, 23 for major assaults, 40 for minor assaults, 21 for robberies, 39 for offences of criminal damage, two for arson, and 30 for breach of the peace.

Of the total sample of 210 exhibitionists, 54 (26%) had a conviction for at least one contact sexual offence. This was statistically associated with 20 variables, but particularly ($p < .005$) with the following eight: a history of childhood conduct disorder, convictions for acquisitive offending, excessive libido, homosexuality, exhibiting at more than one site, cornering or pursuing the victim of the exposure, touching the victim, and being assessed by a psychiatrist as having an unfavorable prognosis (Sugarman et al.,1994).

Many of the demographic and historical variables studied were not statistically associated with contact sexual offences, including marital status, employment, and introversion. However, skilled workers, unlike semi-skilled workers, were associated with contact offences. A family history of criminality, substance abuse or mental handicap was associated with an excess of contact sexual offences, in contrast to a family history of mental illness which was associated with fewer. While personal histories of mental illness, alcohol or substance abuse were not associated with contact sexual offences, below average intelligence, a diagnosis of personality disorder, and any kind of relationship difficulties were each associated with an excess of contact sexual

offences. No excess of contact sexual offences was detected amongst the few cases recorded as victims of abuse or as having non-paraphilic psychosexual difficulties. An early age of conviction and criminal damage were only weakly associated with contact sexual offences.

In terms of offence variables, Exhibitionists known to use one site, or to be anxious or dysphoric at the time of the offence, were less likely to have committed contact sexual offences, while those touching or cornering or pursuing a victim were significantly more likely to have done so. Exposing to younger victims, speaking to victims, and displaying an erection or masturbating during the offence were all weakly associated with subsequent hands-on offences. Exposure to male victims was not associated. A favorable prognosis by the psychiatrist, such as the view that future indecent exposure was unlikely, was strongly associated with fewer subsequent hands-on offences (Sugarman et al., 1994).

The 168 cases with both psychiatric notes and criminal record data were entered into a discriminant function analysis. The seven variables selected for maximal discrimination between those cases with and without subsequent contact sexual offences included: being of below average intelligence, having a conviction for criminal damage, being a skilled worker, exposure at only one site, displaying an erection or masturbating during the exposure, cornering or pursuing the victim, and having a history of homosexuality or bisexuality. The discriminant function was able to correctly allocate over 80% of cases as having or not having a hands on sexual offence (Sugarman et al., 1994). These findings suggest that with further research, the prediction of violent recidivism in exhibitionists appears feasible (Sugarman et al., 1994).

The association of some offence variables, such as anxious or dysphoric mood, exposing at one site only, and not having an erection or masturbating, with an absence of subsequent hands-

on sexual offences supports Rooth's (1971) 'type I' picture of an inhibited, flaccid exposer as opposed to the 'type II' sociopathic, erect exposer presumably more likely to commit serious offences. Although Rooth's typology suggests that introversion may be a good prognostic sign with regards to recidivism, Sugarman et al.'s (1994) findings contradict this. Evidence of social skill deficits amongst sex offenders is well documented (Fisher & Howells, 1993; Marshall et al., 1991). Rooth (1971) also suggested a family history of psychiatric illness as a feature of sociopathic cases, while Sugarman et al.'s findings indicate a broader range of familial problems.

Sugarman et al's (1994) findings have further implications. The association of subsequent hands-on sexual offences with exhibiting to young victims suggests that exhibitionism and child molestation may occur together. It is plausible that exhibitionism, intended as a preliminary to a more serious offence, may often lead to an arrest for indecent exposure. The contention that exhibitionism with the intent of closer contact be included in psychiatric definitions has been discussed earlier. Also, the occurrence of excessive libido in some individuals with both exhibitionism and violent sexual offending supports the contention that occasional cases of exhibitionism are part of a polymorphous sexual activity of unusual variety and quantity (Rooth, 1971). Sugarman et al.'s findings suggest that exhibitionism in homosexual men may sometimes be associated with more serious sex offending. Homosexual activity in exhibitionists is described by Rooth (1971), although Abel et al. (1988) found only three homosexuals among 142 participants.

In terms of methodological issues, Sugarman et al.'s (1994) study is retrospective, based on relatively unsystematic data noted over many years in clinical practice and on data routinely collected by the criminal justice system. While it adds to the limited body of knowledge in the

area, it lacks both a control group and a battery of standardized assessment tools. Inevitably, there are biases in such a study, necessitating cautious interpretation of results.

Methodological Issues

The above findings notwithstanding, there still remains limited empirical data to aid the clinical assessment of recidivism or dangerousness in exhibitionists. It has been suggested that the development of rational prediction strategies for clinical practice in fact requires large scale prospective studies of exhibitionists seen early in their criminal career (Sugarman et al., 1994). Ideally, each case would be subject to standardized data collection including not only psychiatric interview, informant interview, and examination of witness statements and criminal records, but also detailed cognitive assessment, and the elucidation of sexual attitudes and preferences through psychometric and phallometric means (Marshall & Barbaree, 1991; Sugarman et al., 1994). It has further been recommended that future research should include samples from different populations, including the general population, to broaden our perspective of paraphilic behavior (Bradford et al., 1992).

Purpose of the Study

The primary focus of the present study was to investigate the relationship between Sexual, Violent and Criminal Recidivism respectively and the demographic, historical, psychological, physiological and offence characteristics of Exhibitionists. A secondary purpose was to describe the population of Exhibitionists seen at the Sexual Behaviors Clinic during the first 13 year period, from the clinic's inception in 1983 to July 1996, and to compare it with both a Rapist and Normal Contrast group. A further exploratory purpose was to examine the differences between those Sexual Recidivists, within the Exhibitionist group, who subsequently performed hands-on

sexual offences and those who subsequently performed hands-off sexual offences.

Specific Hypotheses

Part 1: Comparison between the Exhibitionist, Rapist and Normal Contrast Groups.

1. It was hypothesized that Rapists would evidence significantly more psychological maladjustment than the Exhibitionists and the Normal Contrast group, as indicated by higher scores on the Michigan Alcoholism Screening Test, the Buss-Durkee Hostility Inventory, and the Brief Psychiatric Rating Scale;

2. It was hypothesized that Rapists would demonstrate significantly more cognitive distortions than the Exhibitionists and the Normal Contrast group, as indicated by higher scores on the Rape Myth Acceptance, the Acceptance of Interpersonal Violence and the Adversarial Sexual Beliefs Scales, and the Coercive Sexuality Scales. Exhibitionists would demonstrate significantly more cognitive distortions than the Rapists and the Normal Contrasts with regards to sexual contact with children, as indicated by lower scores on the Cognition Scale;

3. It was hypothesized that Exhibitionists would demonstrate significantly less psychopathic traits than Rapists as evidenced by lower scores on the Psychopathy Checklist-Revised;

4. It was hypothesized that measures of deviant sexual arousal on phallometric testing would differ according to the offender group. Rapists would have both a higher Rape Index and Assault Index when compared with Exhibitionists. Exhibitionists would have both a higher Pedophile and Pedophile Assault Indices when compared with the Normal Contrast group.

Part 2: A Comparison between the Sexual, Violent and Criminal Recidivist and Non-Recidivist Exhibitionist groups.

1. It was hypothesized that Recidivists would have a significantly higher incidence of

negative childhood experiences than Non-Recidivists as elicited by the Bradford Forensic Assessment Form;

2. It was hypothesized that Recidivists would evidence significantly more psychological maladjustment than Non-Recidivists as indicated by higher scores on the Michigan Alcoholism Screening Test, the Buss-Durkee Hostility Inventory and the Brief Psychiatric Rating Scale;

3. It was hypothesized that Recidivists would evidence significantly more cognitive distortions than Non-Recidivists, as indicated by higher scores on the Rape Myth Acceptance Scale, the Acceptance of Interpersonal Violence and the Adversarial Sexual Beliefs Scales, the Coercive Sexuality Scales, and by lower scores on the Cognition Scale;

4. It was hypothesized that Recidivists would evidence significantly more psychopathic traits than Non-Recidivists as indicated by significantly higher Psychopathy Checklist-Revised Total scores;

5. It was hypothesized that Recidivists would demonstrate significantly higher scores of deviant arousal on phallometric testing as indicated by the Pedophile, Pedophile Assault, Rape and Assault Indices than the Non-Recidivists;

6. It was hypothesized that Recidivists would demonstrate an offence history characterized by significantly more prior criminal, violent and sexual offences as measured by CPIC records than the Non-Recidivists.

Part 3: A Comparison between the Hands-on and Hands-off Sexual Recidivist Groups.

1. It was hypothesized that the Hands-On Sexual Recidivists would have a significantly higher incidence of negative childhood experiences than the Hands-Off Sexual Recidivists as elicited by the Bradford Forensic Assessment Form;

2. It was hypothesized that the Hands-On Sexual Recidivists would evidence significantly more psychological maladjustment than the Hands-Off Sexual Recidivists as indicated by higher scores on the Michigan Alcoholism Screening Test, the Buss-Durkee Hostility Inventory and the Brief Psychiatric Rating Scale;

3. It was hypothesized that the Hands-On Sexual Recidivists would evidence significantly more cognitive distortions, than the Hands-Off Sexual Recidivists as indicated by higher scores on the Rape Myth Acceptance Scale, the Acceptance of Interpersonal Violence and the Adversarial Sexual Beliefs Scales, the Coercive Sexuality Scales, and by lower scores on the Cognition Scale;

4. It was hypothesized that the Hands-On Sexual Recidivists would evidence significantly more psychopathy traits than the Hands-Off Sexual Recidivists as indicated by higher Psychopathy Checklist-Revised Total scores;

5. It was hypothesized that the Hands-On Sexual Recidivists would demonstrate significantly higher scores of deviant arousal on phallometric testing than the Hands-Off Sexual Recidivists as indicated by higher Pedophile, Pedophile Assault, Rape and Assault Indices;

6. It was hypothesized that the Hands-On Sexual Recidivists would demonstrate an offence history characterized by significantly more prior sexual, violent and criminal offences as documented by CPIC records than the Hands-Off Sexual Recidivists.

Method

Participants

Exhibitionist Sample

The Exhibitionist sample included 221 Exhibitionists referred for assessment to the Royal Ottawa Hospital Sexual Behaviors Clinic (SBC) from its inception in 1983 to 1996. For purposes

of inclusion in this study, participants were defined as 'Exhibitionists' in one of three ways: i) patients who were diagnosed with 'Exhibitionism' by a psychiatrist; ii) offenders who were charged or convicted by the police or courts with an 'indecent act', i.e. the offence of exhibiting; or iii) patients who were self-referred with the problem of exhibiting. An exclusion criterion for participation in the study was a police record of either a charge or a conviction of a hands-on sexual offence prior to the index offence for which the patient was referred. Although all participants were referred for assessment purposes, the sample was heterogeneous with regard to receiving treatment or court-sentencing. While the vast majority of participants were assessed prior to receiving treatment or court sentences, the proportion of subjects who had been treated could not be ascertained. Virtually none of the participants were convicted of the index offence or on parole at the time of the assessment. Only data elicited at the initial assessments of the respective participants were used. All participants had signed an informed consent at the time of the assessment. (See Appendix A).

Rapist Contrast Group

The Rapist contrast group included the 86 men assessed at the Royal Ottawa Hospital's Sexual Behaviors Clinic from 1983 to 1992 and classified as Rapists in a previous study (McCoy, 1996), after meeting the following inclusion criteria: i) the patient was convicted by the courts of either a contact sexual offence or an assault that the documentation in the medical files indicated was sexual in nature; ii) the victim of the index offence was a female over the age of 16 years who was not biologically related to the subject. Only participants who had signed an informed consent at the time of the assessment were included in the study. (See Appendix A).

Normal Contrast Group

The normal contrast group of 100 men formed the comparison group for an earlier investigation by the Sexual Behaviors Clinic on child molesters (Bradford, Palwak & Curry, 1997). Participants were recruited through a vaguely worded advertisement placed in a local newspaper over a period of 7-months, describing the study as involving 'some intrusive, but not painful procedures'. The assessment procedures were subsequently described in detail to the 237 men who responded to the advertisements. Of these 110 expressed interest in participating and their first names and telephone numbers were collected. They were subsequently phoned for an appointment one week in advance. Some declined the appointment when called, or failed to keep their appointments. A sample of 100 were eventually tested. Each participant was cautioned that if they informed the investigator that they had physically or sexually abused a child, the investigator was legally obligated to report this to the Children's Aid Society. While this process may have eliminated some prospective participants, it was intended to increase the probability that they were an appropriate sample of non-deviants.

Participants were screened during the initial telephone call. Inclusion criteria included: i) being male; ii) being between 18 and 55 years of age; iii) not having a history of serious psychiatric disorder; iv) never having been charged with a sexual offence of any kind; v) having no concerns about their sexual functioning; vi) and not currently being on any medication which might affect sexual arousal.

Anonymity and confidentiality, within the constraints of the law, were maintained, but demographic information, excluding identifying data, was collected.

Measures

The assessment battery for sexual offenders was introduced at the Sexual Behaviors

Clinic at its inception in 1983, and is similar to batteries used in other Sexual Behavior Assessment Centers. Certain psychometric measures were added subsequently, (e.g. Michigan Alcohol Screening Test and the Cognition Scale). Consequently, data from these measures are missing for some participants. Medical files were reviewed by the researcher for the purposes of extracting demographic and historical information, psychological and phallometric assessment scores, and data for the retrospective completion of the Psychopathy Checklist-Revised. This provided data in six domains: i) demographic data; ii) personal and familial historical information; iii) psychological measures including psychological maladjustment, sexual functioning, cognitive distortions, and psychopathy; and iv) phallometric measures. With the exception of the Psychopathy Checklist-Revised, all the assessment measures listed below were administered at the time of the initial forensic assessment. Only the Psychopathy Checklist- Revised was completed retrospectively by reviewing the medical charts.

Demographic Information

Demographic information was obtained from the Bradford Forensic Assessment Form (Bradford, 1992). This inventory consists of 29 items which elicit demographic and historical information, and characteristics of the participant's index offence. Responses to all items are categorical (See Appendix B). Demographic data of interest were age, education, and marital status. Historical data of interest included personal history of drug abuse and physical abuse, family history of violence, placement outside the family prior to 16 years, family history of alcoholism, drug abuse, mental illness and criminality. Characteristics of the index offence included whether the participant was under the influence of substances at the time of the offence and whether they admitted to the offence.

Information about sexual activity was obtained from the Bradford Sexual History Form (Bradford, Pawlak, Boulet, & Curry, 1991). This self-report inventory consists of 65 items grouped into 9 categories, which inquire about the participant's previous and current sexual activities. Of relevance to the present study are Section I, item 36, 'How many times have you intentionally exposed yourself to a stranger in a public place', and item 43, 'How many times have you intentionally exposed your penis in a public place' with a range of 'none to over 100 times'. (See Appendix C for a copy of Section A and B of this inventory).

Psychological Maladjustment

Alcoholism

Alcoholism was measured using the Michigan Alcoholism Screening Test (MAST) (Selzer, 1971). This is a self-report inventory containing 24 items representing the common signs of alcoholism such as work problems due to alcoholism, medical problems associated with alcoholism and alcohol withdrawal symptomatology. Respondents answer 'yes' or 'no' to each of the items. The degree of problem associated with alcoholism is reflected in the total number of 'yes' responses, while positive responses to any of items 9, 20 or 21 are considered diagnostic (Selzer, 1971). Total scores of 5 or 6 are considered suggestive of alcohol problems and a score of 7 or more is considered strongly indicative of alcohol abuse (Allnutt, Bradford, Greenberg, & Curry, 1996). The validity and reliability of this instrument are well established (Selzer, 1971; Selzer et al, 1975). The internal consistency had a reported overall α coefficient of .87 and a validity coefficient of r = .79, and is relatively unaffected by age or denial of socially unacceptable characteristics (Magruder-Habid, Durand & Frey, 1991). The MAST has been found to correlate with DSM-III-R criteria for alcohol dependence (Magruder-Habid, Steven, & Ailing, 1993).

Where inconsistency occurred, the MAST tended to over-diagnose. Because reliability has been shown to be lower for the shorter version of the test, the longer version is recommended where practical (Gibbs, 1983). In addition to being extensively used as a screening tool for alcoholism, the MAST has been incorporated in research with samples of sex offenders (e.g., Allnutt et al., 1996; Hucker et al., 1986; Hucker et al., 1988; Rada, Laws, & Kellner, 1976; Rada, Laws, Kellner, Stivastava, & Peake,1983). (See Appendix D).

General Hostility

General hostility was measured using the Buss-Durkee Hostility Inventory (BDHI) (Buss & Durkee, 1957). This inventory contains 75 true-false statements which provide a measure of seven constructs representing general hostility: i) assault; ii) indirect hostility; iii) irritability; iv) negativism; v) resentment; vi suspicion and vii) verbal hostility. An additional construct captured by the BDHI is guilt. This scale is part of the inventory but is not included in the Total Score. Factor analysis indicates that the BDHI represents two constructs, one which is attitudinal, and the other representing aggressive behaviors. A total score of 38 is considered high according to Buss and Durkee (1957). There is a substantial body of validation evidence to support this widely used inventory (Buss, 1961; Buss & Durkee, 1957; Geen & George, 1969; Sarason, 1961). The BDHI has been used in sex offender research, yielding significantly higher scores for violent rapists than for non-offending controls (Rada et al., 1976). (See Appendix E).

Psychiatric Disturbance

The degree of psychiatric disturbance was measured using the Brief Psychiatric Rating Scale (BPRS) (Overall & Gorham, 1962). This inventory was designed to provide ratings on psychiatric symptomatology in 16 domains, such as anxiety, emotional withdrawal, somatic

concerns and hostility. For each domain, the clinician is required to rate the degree of which symptomatology is present in the subject. Ratings may range from a low score of 0 (not present) to 6 (extremely severe). In addition to providing information about specific symptomatology, a total score provides an overall indication of psychiatric disturbance. An internal consistency coefficient of .63 has been reported (Dingemans, 1990). Good inter-rater reliability has been reported with coefficients ranging from .56 for 'Tension' to .87 for 'Hallucinatory Behavior' (Overall & Gorham, 1962). (See Appendix F).

Sexual Functioning

Sexual functioning was measured using the Derogatis Sexual Functioning Inventory (DSFI) (Derogatis, 1975, 1978). This multidimensional test 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 inventory comprises ten domains including information about sexual functioning, experience, drive, sexual attitudes, psychological symptoms, affect, gender role definition, sexual fantasies, body image, and sexual satisfaction. The Sexual Functioning Index is a global measure derived by summing the 10 subtest scores and thus provides an overall measure of an individual's level of sexual functioning. Responses vary from true/ false and yes/ no answers, frequencies ranging from 'not at all to four or more a day', and Likert scales ranging from 'strongly agree to disagree', 'not at all to extremely', and 'never to always'. Reliability for the various subtests is reportedly 'quite good' (Derogatis, 1980). Both internal consistency (ranging from .56 to .97 for the respective subtests) and test-retest coefficients (ranging from .58 to .96) tend to be very high and well within the acceptable range

(Derogatis, 1980). Regarding internal consistency, reliability subtest measures such as experience and fantasy reveal very high coefficients (.97 and .82). The major component scores (e.g., liberalism, conservatism, positive and negative affect, masculinity and femininity) also showed very high internal consistency. The coefficient for Information falls below acceptable levels (.56). Regarding test-retest coefficients, the DSFI performs satisfactorily. Experience, attitude, symptoms and fantasy coefficients are all above .90, while those for affect and gender role are above .80, and that for drive is .77. Affect component coefficients are reduced (.75 and .42) as expected from fluctuating mood. Again, information coefficient was lower than acceptable on test-retest. With regards to validity, results of a factor analysis identified seven empirical dimensions underlying the DSFI, which were labeled psychological distress, body image, heterosexual drive, autoeroticism, gender role, satisfaction and sexual precociousness. The DSFI has been used with large nonforensic samples. Its use with sexual offenders is limited. There is some suggestion that sexual offenders show high levels of sexual dissatisfaction (Hanson, Cox, & Woszcsyna, 1991). (See Appendix G).

Sexual Attitudes

Sexual attitudes and beliefs were measured using several scales including the Cognition Scale (Abel, Becker, & Cunnigham-Rathner, 1984); the Rape Myth Acceptance Scale (Burt, 1980); and the Coercive Sexuality Scales (Rapaport & Burkhart, 1984). The Cognition Scale (Abel, Becker, & Cunnigham-Rathner, 1984), which was designed for use with adult child molesters, is composed of 29 statements which reflect values about adult sexual contact with children. Respondents are asked to endorse one response category for each item. Response categories range from ‘strongly agree to strongly disagree’. Factor analysis has indicated that the Cognition

Scale is unidimensional (Abel et al., 1989; Hanson, 1994); thus, individual item scores may be summed to yield a total score ranging from 29 to 174. Total scores are then divided by the total number responded to, so as to provide a statistic ranging from 1 to 5. Lower scores indicate a greater degree of permissiveness toward adult sexual contact with children indicative of sexual deviation. Sample items include: i) 'Having sex with a child is a good way for an adult to teach the child about sex'; ii) 'Sometime in the future, our society will realize that sex between a child and an adult is all right'. This scale has demonstrated good discriminant validity in that groups of child molesters have been distinguished from non-offending controls (Gore, 1988; Hanson, 1994; Stermac & Segal, 1989). Reliability has also been adequately demonstrated, with an alpha-coefficient of .92 reported for internal consistency (Hanson, 1994). A Pearson product-moment coefficient of .76 indicates good test-retest reliability (Abel et al., 1989). Although the psychometric properties of the Cognition Scale appear to be acceptable, it has been noted that the measure is in need of modification, in part due to its transparency, possibility for socially desirable response biases and lack of discriminative utility within certain sexual offender groups. Furthermore, two of the items assess beliefs about treatment, rather than about child molestation itself (Abel et al. 1989). Another potential problem is the odd number of response options (1 to 5) on the Likert-type scale, which allows the individual to take a seemingly neutral or indifferent position, consequently limiting the scale's usefulness in assessing cognitive distortions (Bumby, 1996. (See Appendix H).

The Rape Myth Acceptance Scale (RMA) consists of 13 items which assess the prevalence of cognitive distortions about rape. Two short scales also developed by Burt (1980) were included, namely, the Acceptance of Interpersonal Violence (AIV) and the Adversarial

Sexual Beliefs (ASB).

The AIV consists of 19 statements which best reflect respondents' beliefs about rape. The format varies with responses on a 7-point Likert scale requiring either 'strongly agree to strongly disagree', 'almost none to almost all', or 'never to always' responses.

The ASB requires the respondent to rate their response according to the response that best reflects their belief with regards to 15 different sexual beliefs. Responses range from 'strongly agree to strongly disagree'.

Overall scores for each scale are obtained by calculating the sum of the respondents' ratings for all items. On all three scales, lower scores reflect attitudes condoning both sexual and general aggression or supporting rape myths. Higher scores reflect disagreement with such attitudes. (See Appendix I).

The Coercive Sexuality Scales (CSS) A and B (Rapaport and Burkhart, 1984) evaluate the prevalence of coercive sex among respondents. The respondent is required to indicate on the 4-point scale how frequently they have engaged in 19 different coercive heterosexual behaviors. Items 1-11, on Scale A, range from less to more intrusive behaviors (e.g., from item (1) 'Held a woman's hand against her will' to item (11) 'Had intercourse with a woman against her will'. Items in the second half of the questionnaire (Scale B) focus on the method of force used in increasing severity (e.g., from item (12) 'attempted to verbally convince a woman to have sex with you' to item (19) 'used a weapon on a woman to get her to have sex with you'. Responses range from 'never to often'. The sum of responses yields an overall total score as well as scores for Scale A and B respectively. (See Appendix J).

Psychopathy

Psychopathy was measured with the Psychopathy Checklist-Revised (PCL-R) (Hare, 1991). This tool consists of 20 items that measure both the personality characteristics (e.g. glibness/superficial charm; grandiose sense of self worth; callousness/lack of empathy) and behavioral characteristics (e.g., impulsivity, promiscuous sexual behavior, and criminal versatility) of the disorder, considered fundamental to psychopathy, as defined by the PCL-R (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 (Hare, Forth, & Strachan, 1992). Factor analyses of the PCL-R have consistently yielded two distinct and stable factors (Hare, 1991). Factor 1, known as the personality dimension, measures interpersonal and affective traits such as superficiality, manipulativeness, pathological lying, lack of empathy or remorse, and grandiose sense of self-worth. Factor 2, known as the behavioral dimension, describes a chronically unstable, antisocial, and socially deviant lifestyle. Although correlated with one another, both factors exhibit a differential pattern of correlation with other clinical, personality and experimental variables (Hare, 1991; Harpur, Hare, & Hakstian, 1989; Kosson, Smith, & Newman, 1990; Brown & Forth, 1997). Using five prison samples and three forensic samples (Hare, Harpur, Hakstian, Forth, Hart, & Newman, 1990), the correlation between the two factors averaged .48. Previous studies have found the inter-rater reliability and internal consistency of both factors to be high despite the small number of items per factors (Hare et al., 1990; Hare, 1991). For the purposes of categorical scoring, Hare (1991) suggests that a cutoff of 30 be used to discriminate psychopathic from nonpsychopathic individuals. Generally, the PCL-R is scored on the basis of a semistuctured

interview and collateral information obtained from sources such as official records and psychological assessments. Valid PCL-R ratings can also be made on the basis of high quality archival information (Grann, Langstrom, Tengstrom, & Stalenheim, 1998; Wong, 1988). The PCL-R was scored retrospectively in a previous doctoral dissertation (McCoy, 1996) on the basis of archival information. The PCL-R is currently being used widely in sex offender research (Harris, Rice, & Quinsey, 1993; Serin, Malcolm, Khanna, & Barbaree, 1994). (See Appendix K).

Sexual arousal

Sexual arousal was measured as part of the routine assessment procedure for all participants, using equipment manufactured by Farrell Instruments. Changes in penile circumferences in response to audio/ visual stimuli were measured by means of an Indium-Gallium strain gauge and monitored by a CAT200. These data were then fed into an IBM compatible computer for storage and printout.

Prior to the presentation of the first stimuli set (slides), participants viewed an explicit videotape depicting mutually consenting sex between adults, either heterosexual or homosexual, depending upon the orientation of the subject. This procedure serves to mitigate the 'warm-up' effect commonly observed during phallometric assessments, and hence increases response reliability (Baxter, Barbaree, & Marshall, 1986). The use of a powerful erotic stimulus also serves to allay any apprehension that the participant may have when arriving at the laboratory, and primes him for subsequent stimuli. Additionally, a baseline measure is provided for later comparative purposes, as participants are asked to report when they feel they have achieved a full erection.

The order of stimuli presentation, held constant for all subjects, is computer controlled,

using MPV Forth, version 3.05 software provided by Farrell Instruments. Participants were presented with one or more of three series of audiotapes, according to the nature of the sexual offence. Audiotapes are played on a Realistic portable cassette recorder through stereo headphones. The battery of audiotapes consists of vignettes (Abel, Blanchard, & Barlow, 1981) of approximately two minutes duration which describe sexual activity varying with respect to age, sex, and degree of consent, coercion and violence portrayed. Each subject was presented with a full set containing one vignette from each category and was asked to allow himself to become aroused if he felt aroused. The female child series consists of descriptions of sexual activity with a female partner/victim for eight categories. The male child series consists of eight corresponding vignettes involving a male partner/victim but also includes one scenario involving an adult female partner. For each of the female child and male child series, 2 equivalent scenarios for each category are included. Categories were: a) child initiates; b) child mutual; c) non-physical coercion of child; d) physical coercion of child; e) sadistic sex with child; f) non-sexual 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 includes 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.

For the present study, the variables of interest were the Pedophile Index, Pedophile Assault Index, Rape Index and Assault Index, all of which were calculated from data generated in the audiotape modality only. These Indices were computed by the Research Assistant at the SBC at the time of assessment. The Pedophile Index was calculated by dividing the participant's highest response to a 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 Rape Index was calculated by dividing the response to the rape stimulus by the response to the adult consenting stimulus; and the Assault Index was calculated by dividing the response to a nonsexual assault stimulus by the response to the adult consenting stimulus.

Participants who offended against children under 16 years of age were presented with stimuli of female or male children, as determined by the attending psychiatrist at the time of the initial forensic interview. Usually, the determination was made based upon the gender of the victim in the index offence. For participants whose victims included both sexes, the higher index was used, because a higher index indicates a more deviant response, and is presumed to reflect the subject's preferred sexual partner. For offenders who offended against children and adults, the higher of the Rape or Pedophile Index was used. Because the Normal Contrast group was enlisted primarily as a control for a sample of child molesters, only Pedophile and Pedophile Assault material were presented, and consequently no Rape or Assault Indices were available.

Offence Histories

The sole source of information for previous offence histories and outcome variables was the Canadian Police Information Center (CPIC) data which were obtained from the Ottawa Police Department. These were matched to each individual participant according to name, date of birth, and index offence particulars. CPIC records contain the individual's criminal history and include details including dates of charges and convictions, the nature of offences, the dispositions of

incidents (i.e. convicted, charges withdrawn, stay for proceedings), the sentences or penalties imposed in cases of convictions, and in some cases, prison release dates. (A sample CPIC record is presented in Appendix L). CPIC information was used to determine inclusion criteria, (i.e. whether the subject was convicted or charged of the index offence), the offence history prior to the index offence, whether the participant recidivated, and if so, the date and category of the new offence.

With regard to the calculation of 'time at risk', in order for an offender to be considered eligible for recidivism, he must have been free to commit a crime, (i.e. he could not have been incarcerated or held in secure custody for reasons of mental illness). The 'at risk' period was determined to be from the first day of eligibility following the index offence to the date when a new charge or conviction was incurred. For all participants, the follow-up time ended on May 31 1998, but began at different times between 1985 and 1993. In instances where CPIC records contained release dates, these dates were used as the first day of time at risk. However, in cases where CPIC records indicated that the offender received incarceration as a penalty for the index offence, but did not indicate the release dates, the first day of eligibility was estimated based upon an offender having served two-thirds of his sentence, (i.e. mandatory release), for the index offence. In cases where offenders were not incarcerated for the index offence, the follow-up time was calculated from the date of the offender's initial assessment at the Royal Ottawa Hospital's Sexual Behavior Clinic. In all cases, the offender remained 'at risk' until the date he was charged or convicted of a new offence, as indicated by the CPIC record.

The present study considered recidivism rates for sexual recidivism, violent recidivism and criminal recidivism. Sexual recidivism was defined as the recommission of any sex offence (Furby

et al., 1989); violent recidivism reflected the recommission of any type of violent offence against a person, whether of a sexual or non-sexual nature; and criminal recidivism reflected the recommission of any type of criminal offence (sexual or nonsexual violent, or non-sexual nonviolent) during the follow-up period (Proulx et al., 1997). Due to plea bargaining, the researcher used a cumulative hierarchy in which each additional category includes new information and subsumes that of previous categories. Consequently, some subjects may have had nonsexual charges following a sexual offence (Rice et al., 1991).

Procedure

This study did not require the active participation of any subject. All demographic, historical, psychological and phallometric data for the Exhibitionist and Rapist groups were collected from the medical records of the Royal Ottawa Hospital Sexual Behaviors Clinic (SBC). Only data from the records of subjects for whom signed informed consent had been obtained at the initial assessment were included. (See Appendix 1). Because this clinic was initially developed as a research and training facility, the data have been systematically collected, using a variety of standardized instruments and procedures.

The assessment process at the SBC routinely includes several components. Initially, a psychiatric interview is conducted by a staff psychiatrist. During the interview, the patient's written consent is obtained for completion of all questionnaires, phallometric testing and biomedical assessment procedures, including blood testing, urinalysis, CT scan and other procedures, depending on their individual needs. The assessment process routinely incorporates the assessment of sexual arousal by means of Plethysmography, and psychological testing. It also elicits complete social and demographic histories. Subjects are classified by SBC psychiatric staff

into offender categories based upon offence history, self-report of preference and phallometric test results.

In order to carry out the recidivism investigation, the police records of all Exhibitionists were obtained from the Canadian Police Information Center (CPIC). The researcher provided the Center with the full names, birthrate and FPS numbers, where available, on all potential participants. CPIC data helped determine whether the participants went on to become part of the federal or provincial prison system. The dates and types of offences which subjects were charged with since release from prison were determined from CPIC information. The offences were categorized as sexual offences, violent offences of both a sexual or non-sexual nature, and criminal offences (i.e. any criminal offence). All CPIC information, including sentences received for the index offences, the date of incarceration, the release date, warrant expiry date and information concerning breach of parole or probation were examined where available.

Results

Statistical treatment of the data

The goals of statistical analyses performed on the data were three-fold: 1) to detect and examine overall differences between Exhibitionists and the Rapist and Normal Contrast groups; 2) to detect and examine differences between Recidivists and Non-Recidivists within the Exhibitionist group; and 3) to detect and examine differences between the Hands-on and Hands-off groups of Sexual Recidivists within the Exhibitionist group; with analyses grouped according to statements of hypotheses.

All data were analyzed using SPSS 7.5 for Windows. Prior to performing statistical tests, which were selected according to the nature of the data at hand and the purpose of the test, the data were screened to ensure that the assumptions underlying tests were not violated.

In general, outlying cases were detected by visual inspection of normal probability plots, and by using the criteria of plus or minus three standard deviations from the mean (Tabachnick & Fidell, 1989). Values of outlying cases were adjusted upward or downward according to the direction of the problem, rather than deleted. This method is appropriate when case retention is desirable (Tabachnick & Fidell, 1989); the adjusted case still maintains its rank, but does not unduly influence the group mean. This method was successful in improving distributions and eliminating skewness in most instances.

However, some variables also required transformations to meet assumptions for normality of distribution. Special treatment of these variables is discussed as results are presented. Statistical tests generated by SPSS, such as the Levene test, were used to screen for normality of distribution, equality of variances and homogeneity of variance. In the case of a significant Levene Statistic in t-tests, the F-value generated for 'equal variance not assumed' was used. However, in the case of one-way ANOVAs, where the Levene Statistic was significant, log

transformations were required to meet assumptions for normality of distribution.

Missing data, interspersed throughout the data set, posed a particular problem in the study. Rather than substitute values (because of the large amount of missing data for some variables), cases were deleted from the analysis of that variable (Tabachnick & Fidell, 1989).

Generally, chi-square was used to analyze categorical data. In the cases of chi-square, where the assumption of a minimum of five subjects per cell was not met, categories were regrouped into broader, yet meaningful, categories where possible. In those instances where chi-square tests were computed for 2 x 2 tables, and where the assumption of five subjects per cell was not met, the chi-square statistic could not be used, and the Fisher's Exact Significance (2-sided) was employed instead.

Generally, interval data were analyzed using t-tests (two-tailed) in the case of two groups, and one-way ANOVAs in the case of three groups. In some instances, where the researcher had made specific hypotheses, one-tailed t-tests were used.

A-priori comparisons were tested at the .05 probability level. For multiple comparisons, the family-wise alpha level was set at .05. Where specific directional hypotheses were made, a Bonferroni correction was not utilized. Also, because of the interest in even the subtle differences in the demographic and historical data, the researcher did not control for error rate for these variables. In view of the large number of analyses, and the need to control for type 1 error completely, the researcher recognized that by controlling for multiple comparisons the adjusted significance level would become so small that it would be unlikely to find differences. Because the study is exploratory in nature, the researcher therefore, arranged variables into logical units, e.g. tests of psychological maladjustment, sexual beliefs, psychopathy, measures of sexual deviance,

etc. and controlled for multiple comparisons within each of these units.

The Tukeys test was selected for post-hoc analyses. Only one categorical variable which was analyzed by means of chi-square tests, consisted of three categories, which produced a frequency table composed of six or more cells. Although chi-square results permit a conclusion about the difference between observed and expected frequencies, the number of cells does not permit conclusions about where the difference lies. To determine this, the adjusted residuals were examined.

Characteristics of the Exhibitionists

A total number of 1, 535 patients presenting with a range of sexual offences were seen at the Sexual Behaviors Clinic (SBC) over the 13 year period covered by the present study. This broad population has been described in detail in an earlier investigation (McCoy, 1996). Of these 1, 535 patients, a total of 221 males met this study's criteria for the definition of 'exhibitionism' either as their primary or secondary sexual deviance. For the purposes of inclusion as subjects in this study, patients were defined as 'Exhibitionists' in one of three ways: i) patients who were diagnosed by a psychiatrist with Exhibitionism according to DSM criteria; ii) offenders who were noted by the police or courts to have committed an 'indecent act', i.e. the offence of exhibiting; or iii) patients who were self-referred with the problem of exhibiting.

At the time of their initial assessment at the SBC, of the 221 Exhibitionists seen at the SBC between 1983 and July 1996, 111 (50.2%) had previous criminal records according to Canadian Police Information Center (CPIC) data. Of these, 86 (38.9%) had a prior record of at least one sexual charge or conviction. There was a discrepancy between the number of Exhibitionists with sexual charges or convictions documented in CPIC records, and the number of

Exhibitionists known to the criminal justice system according to the SBC file information, which included referral letters from lawyers, probation and parole officers. In some cases, subjects even had FPS numbers according to CPIC records, but their criminal records were generated by CPIC as being 'not on file'. A personal communication with Sgt. T.Moffat of CPIC (personal communication, July, 1998) suggested that this discrepancy may in some cases be due to pardon situations. A perusal of the files revealed other reasons for this discrepancy, including two cases where the offenders were American citizens who were referred for assessment; and one case where the offender was in the military and was court marshaled.

Table 1 presents a Correlation matrix of all the predictor variables employed in the study. An examination of the correlation matrix indicates a highly significant correlation between the many self-report scales included in the initial assessment, including the Cognition Scale (Abel); the Rape Myth Acceptance Scale, the Adversarial Sexual Beliefs Scale, and the Acceptance of Interpersonal Violence Scale; and the Coercive Sexuality Scales 1 and 2. Since all of these are self-report scales eliciting beliefs and attitudes regarding coercive sexuality, and given their significant correlation with each other, it was decided to include only one self-report scale, the Cognition Scale (Abel) which deals primarily with attitudes to sexual contact with children. (Means and standard deviations for the measures which were excluded from the study are presented in Appendix II). It was decided to maintain all other variables in the study, even in the case of significant correlations, because they differed with regard to the type of assessment tool used (e.g. tests of phallometric functioning; ratings by clinicians).

Table1.

Spearman's Rho Correlation Matrix of the Demographic, Psychological, Phallometric and Canadian Police Information Centre Scores for Exhibitionists

	Educ	MAST	BDHI	BPRS	DSFI	COG	RMAS	ASB	AIV	CSS1	CSS2	PCL-R	PCL-R1	PCL-R2	PI	PAI	RI	AI	Sex	Viol	Crim
Age	-.034	.039	-.222	.164	-.054	.076	-.015	.065	.117	.085	.071	-.115	-.032	-.214**	-.046	.029	-.058	.056	.016	-.006	.036
Educ		-.240**	-.286**	-.121	.221**	.308**	.220*	.103	.290**	-.101	-.080	-.416**	-.274	-.468**	-.042	-.177	-.167*	-.021	-.168*	-.236**	-0.41
MAST			.442**	.047	.005	-.202*	-.041	-.166	-.293**	.213*	.407**	.392**	.226*	.449**	-.150	-.148	-.009	-.016	.135	.144	.331**
BDHI				.076	-.353	-.415	-.280	-.482	-.446	.261*	.312**	.318**	.202**	.475**	.013	-.015	.102	.025	.157*	.131	.247**
BPRS					-.311	-.120	-.151	-.092	-.106	.170	.226*	.165	.144	.171	.334**	-.034	.180	-.090	.066	.011	.026
DSFI						.309**	.394**	.464**	.205	.063	.014	-.145	-.064	-.221**	-.217*	-.252**	-.207**	-.119	-.070	-.032	-.051
COG							.445**	.586**	.511**	-.146	-.086	-.291**	-.167	-.359**	-.224*	.055	-.064	.093	-.022	-.111	-.211**
RMAS								.538**	.441**	.042	-.136	-.153	-.061	-.189	-.205	-.185	-.277*	-.014	.144	.115	-.077
ASB									.443**	-.167	-.041	-.089	-.038	-.204	-.110	-.029	-.169	-.013	.030	.022	-.143
AIV										-.067	-.084	-.308**	-.248*	-.177	.009	.034	-.117	-.018	.097	-.027	-.186
CSS1											.504**	.071	.114	.148	.239	-.346**	.010	-.025	.026	-.017	.019
CSS2												.276*	.259*	.359**	.155	-.166	.014	-.216	.143	.101	.199
PCL-R													.843**	.881**	.031	.119	.047	.023	.209**	.288**	.454**
PCL-1														.613**	.062	.135	.033	.046	.126	.214**	.366**
PCL-2															.072	.089	.057	-.010	.222**	.235**	.405**
PI																.152	.269**	-.003	-.156	-.112	-.060
PAI																	.223*	.309**	-.016	-.048	-.036
RI																		.290**	-.023	-.106	-.038
AI																			-.092	-.137	-.119
Sex																				.826**	.595**
Viol																					.752**
Crim																					

* $p < .05$ ** $p < .01$

Age = age at time of assessment; Educ = number of years of formal education; MAST = Michigan Alcohol Screening Test; BDHI = Buss Dirkee Hostility Inventory (Total Score); BPRS = Brief Psychiatric Rating Scale; RMAS = Rape Myth Acceptance Scale; ASB = Adversarial Sexual Beliefs Scale; AIV = Acceptance of Interpersonal Violence Scale; CSS1 = Coercive Sexuality Scale 1; CSS2 = Coercive Sexuality Scale 2; Cognition = Abel Cognition Scale; PI = Pedophile Index; PAI = Pedophile Assault Index; RI = Rape Index; AI = Assault Index; PCL-R = Psychopathy Checklist-Revised Total Score; PCL-1 = Psychopathy Checklist-Revised Factor 1; PCL-2 = Psychopathy Checklist-Revised Factor 2; Sex = number of prior sexual offenses (CPIC); Viol = Number of previous violent (sexual & non-sexual) offenses (CPIC); Crim = Total number of any previous offenses (CPIC).

Overall, the age of the Exhibitionists at the time of the initial assessment ranged from 18 to 70 years. Their level of formal education ranged from 5 to 22 years. Table 2 presents the characteristics of the SBC Exhibitionist Population, including years of education, marital status, referral source, victim's age, and relationship to victim.

Following the initial psychiatric interview, patients were assigned one or more sexual deviation classifications (DSM 111, DSM 111-R), based upon the charges or convictions they were facing, file information, and also upon information elicited during the interview. Table 2 also presents the primary and secondary sexual deviation classifications.

Comparison between the Exhibitionist, Rapist and Normal Contrast Groups.

Demographic and Self-Reported Historical Variables for Exhibitionist, Rapist and Normal Contrast Groups.

As indicated in Table 3, there were no significant differences between the ages at the time of the assessment of Exhibitionists, Rapists and Normal Contrasts.

In terms of Education Level, there were significant differences between the groups. Post-hoc tests revealed that the Exhibitionists had a higher education level ($\underline{M}$ = 11.88) than the Rapists ($\underline{M}$ = 9.94); and the Normal Contrasts had a significantly higher Education Level ($\underline{M}$ = 13.85) than both clinical groups.

In terms of Marital Status, there were significant differences between the groups. The adjusted residuals indicated that more Exhibitionists (36.8%) were married at the time of the assessment than were Rapists (20.9%) and Normal Contrasts (20.2%).

Exhibitionists were more likely to deny their index offence than were Rapists (85.9 vs. 56.3% respectively). Rapists were however, significantly more likely than Exhibitionists to report being under the influence of alcohol and/ or drugs at the time of the index offence (65.3 vs. 19.8% respectively).

Table 2

Characteristics of the Exhibitionist Population

Variable		n	%
Years of Education	Elementary or less	21	9.6
	Mid-High School	76	34.3
	High School	55	24.8
	Tertiary	50	22.6
	Unknown / missing	19	8.6
Marital Status	Single	114	51.6
	Married	63	28.5
	Common Law	14	6.3
	Divorced	4	1.8
	Separated	13	5.9
	Widowed	1	0.4
	Unknown / missing	12	5.4
Referral Source	Defense Attorney	74	33.5
	Judge / Court	17	7.7
	Probation / Parole	32	14.5
	Child Protection	4	1.8
	Physician	54	24.4
	Psych. Emergency	2	0.9
	Self-referred	15	6.7
	Unknown / missing	9	4.0
	Other	14	6.0
Primary Sexual Deviation	Exhibitionism	166	75.1
	Pedophilia	29	13.1
	Hebephilia	1	0.5
	Rape	8	3.6
	Sadism	2	0.9

Variable		n	%
	Voyeurism	3	1.4
	Atypical Paraphilia	1	0.5
	Scatalogia	1	0.5
	Incest	5	2.3
	Unknown/ missing	4	1.8
	Nil	1	0.5
Secondary Sexual Deviation	Exhibitionism	37	16.7
	Pedophilia	14	6.3
	Hebephilia	2	0.9
	Rape	3	1.3
	Voyeurism	10	4.5
	Transvestism	1	0.5
	Fetishism	1	0.5
	Frotteruism	3	1.4
	Scatalogia	4	1.8
	Nil	140	63.3
	Unknown/missing	6	1.8
Victim's Age	Children under 16	71	32.1
	Adults	95	43.0
	Mixed	15	6.8
	Unknown/missing	40	18.1
Relationship to Victim	stranger	117	53.0
	friend / acquaintance	16	10.6
	biological child	5	2.6
	step-child	2	1.0

Variable		n	%
	sibling	2	1.0
	cousin / grandchild	8	6.7
	wife /common law	1	0.7
	unknown / missing	70	31.7

Table 3

Demographic and Self-Reported Characteristics of Exhibitionists, Rapists and Normal Contrasts

Variable	Exhibitionist (E) (*n*)	Rapist (R) (*n*)	Normal (NC) (*n*)	t, F or χ^2	*df*	$p <$	Posthoc
Age[1]	31.32 ± 9.89[2] (221)[3]	29.31 ± 7.72 (85)	29.02 ± 8.74 (100)	2.813	2, 403	.061	
Education	11.88 ± 2.98 (202)	9.94 ± 2.90 (78)	13.85 ± 2.22 (100)	43.812	2, 377	.001	E>R; E<NC; NC>R
Single	63.2%[4] (132)	79.1% (68)	79.8% (75)	12.393	2	.002	E<R; E<NC
Admit to Index Offense	14.1% (30)	43.8% (35)		29.648	1	.001	
History of Drug Abuse	37.8% (74)	65.4% (53)		17.683	1	.001	
History of Sexual Abuse	26.0% (54)	32.9% (28)		1.459	1	.227	
History of Physical Abuse	22.0% (36)	43.1% (28)		10.317	1	.001	
Family History of Violence	19.8% (35)	57.1% (36)		31.46	1	.001	
Outside Placement before 16 years	13.9% (28)	39.2% (29)		21.002	1	.001	

Variable	Exhibitionist (E) (*n*)	Rapist (R) (*n*)	Normal (NC) (*n*)	*t*, F or χ^2	*df*	$p <$	Posthoc
Family History of Alcohol Abuse	44.5% (77)	44.7% (38)		.503	1	.478	
Family History of Drug Abuse	14.7% (23)	5.5% (4)		4.104	1	.043	
Family History of Mental Illness	20.6% (34)	22.4% (17)		.097	1	.756	
Family History of Criminality	9.3% (14)	6.9% (5)		.355	1	.551	
Substance Use at time of Index Offense	19.8% (39)	65.3% (47)		50.149	1	.001	

[1] Non-transformed scores are presented (transformed scores are presented in Appendix A)

[2] Mean responses ± standard deviations

[3] n-values are in parentheses

[4] In all tables for categorical data, the percentage of subjects is presented first followed by the number of subjects in brackets below.

Rapists were more likely than Exhibitionists to report a history of drug abuse (65.4 vs. 37.8%); a history of physical abuse prior to 16 years (43.1% vs. 22%); a history of family violence (57.1% vs. 19.8%); and a history of placement outside the family prior to 16 years old 13.9 respectively). There were however, no significant differences between Rapists and Exhibitionists with regards to a history of sexual abuse.

Exhibitionists were more likely than Rapists to report a family history of drug abuse, (14.7 vs 5.5% respectively). There were no significant group differences between Exhibitionists and Rapists in terms of a Family History of either Alcohol Abuse, Mental Illness, or Criminality.

In summary, the groups differed significantly on the following demographic and historical variables: Normal Contrasts were more educated than both clinical groups, while Exhibitionists were generally more educated than Rapists. Exhibitionists were more likely to be married or living in common-law relationships than were Rapists or Normal Contrasts. They were also more likely than Rapists to deny their index offence. Rapists were more likely than Exhibitionists to report both a personal history of drug abuse, and the influence of alcohol or drugs on their mental state at the time of the index offence. Exhibitionists were more likely than Rapists to report a family history of drug abuse; while Rapists were more likely to report a history of physical abuse; family violence; and a history of outside placement before 16 years, compared with Exhibitionists.

Psychological Tests Scores for Exhibitionists, Rapists and Normal Contrasts

Psychological maladjustment was represented by three variables: 1) alcohol abuse, as measured by the total MAST score; 2) general hostility, as measured by the total BDHI score; and 3) degree of psychiatric disturbance, as measured by the total BPRS score.

With regard to the MAST, a log transformation was performed on the data to improve the

distribution prior to conducting tests of significance. As indicated in Table 4, there were no significant differences between Exhibitionists, Rapists and Normal Contrasts on alcoholism as measured by the MAST. Further testing yielded no significant difference between the two offender groups, $t(170) = -1.477$, $p < .071$ (one-tailed). 30.2% (n = 39) of the Exhibitionists, 46.5% (n = 20) of the Rapists, and 41% (n = 41) of the Normal Contrast group met the criterion for clinical alcoholism (total score ≥ 7). There were also no significant differences between the Exhibitionists, Rapists and Normal Contrasts on general hostility as measured by the BDHI. Further testing revealed no significant difference between the two clinical groups, $t(287) = -1.017$, $p < .155$. There was also no significant difference between Exhibitionists and Rapists on the degree of psychiatric disturbance, as measured by the BPRS.

In summary, in the area of psychological maladjustment, there were no differences between the Exhibitionist and Rapist groups in terms of alcoholism (MAST), or psychiatric disturbance (BPRS) respectively. However, in terms of general hostility (BDHI) Exhibitionists tended to score less than the normal.

In terms of Sexual Functioning, as assessed by the Sexual Functioning Index of the Derogatis Sexual Functioning Scale (DSFI), the result of a one-way ANOVA, was significant. Post-hoc tests revealed that Normal Contrasts demonstrated a higher Sexual Functioning Index ($M = 45.56$, 30th percentile) than that of both clinical groups, indicative of better sexual functioning in general. There was no significant difference between the Exhibitionist and Rapist groups ($M = 36.10$, 8th percentile and 34.77, 6th percentile respectively) on the Sexual Functioning Index of the DSFI, with both groups demonstrating below average sexual functioning in general.

Table 4
Psychological Test Scores of Exhibitionists, Rapists and Normal Contrasts

Variable	Exhibitionist (E) (*n*)	Rapist (R) (*n*)	Normal (NC) (*n*)	*t*, F	*df*	*p* <	Posthoc
Michigan Alcohol Screening Test[1]	9.74 ± 15.50[2] (129)[3]	13.58 ± 14.39 (43)	8.87 ± 11.22 (100)	1.783	2, 269	.085	
Buss Durkee Hostility Inventory	27.81 ± 11.45 (209)	29.36 ± 12.07 (80)	30.86 ± 10.96 (99)	2.461	2, 385	.088	
Brief Psychiatric Rating Scale	10.58 ± 8.09 (117)	11.90 ± 7.98 (29)		-.786	144	.434	
Derogatis Sexual Functioning Inventory	36.10 ± 13.42 (203)	34.77 ± 13.81 (76)	45.56 ± 13.92 (100)	19.385	2, 376	.001	NC>E; NC>R
Cognition Scale[1]	4.51 ± 0.51 (155)	4.50 ± 0.47 (53)	4.72 ± 0.31 (100)	7.664	2, 305	.001	NC>E; NC>R
Psychopathy Checklist - Revised Total	14.91 ± 8.56 (190)	25.17 ± 8.24 (78)		-9.012	266	.001	
Factor 1	6.03 ± 4.1 (188)	10.07 ± 3.65 (76)		-7.482	262	.001	
Factor 2	7.4 ± 4.83 (154)	11.53 ± 4.60 (65)		-5.861	217	.001	

[1] non-transformed scores are presented (transformed scores are presented in Appendix A)
[2] mean responses ± standard deviations
[3] n-values are in parentheses

Several psychological scales eliciting attitudes and beliefs regarding sexual deviance, coerciveness and aggression were administered including: 1) the Cognition Scale which reflects values about adult sexual contact with children; 2) the Rape Myth Acceptance Scale (RMAS), the Adversarial Sexual Beliefs Scale (ASB)and the Acceptance of Interpersonal Violence Scale (AIVS) and 3) the Coercive Sexuality Scales 1 and 2 which reflect values and attitudes about sexual aggression and coercion. Because of the highly significant correlations between RMAS, ASB, AIV, CSS 1 and 2, and the Cognition Scale as reflected in Table 1, only the Cognition Scale was retained and the remaining variables were excluded from any of the subsequent analyses. (The mean scores and standard deviations of these variables are reported in Appendices II and III).

With regard to the Cognition Scale, a log transformation was performed on the data to improve the distribution prior to conducting tests of significance. The result of a one-way ANOVA was significant. Post-hoc tests revealed that the Normal Contrasts had a significantly higher Cognition Scale score (M = 4.72) indicative of a lesser degree of permissiveness regarding adult sexual contact with children, than the Exhibitionist (M = 4.51) and the Rapist (M = 4.50) groups, which did not differ from each other. Caution must be used in interpreting this result, because although statistically significant, the marginal differences between group means and the high ceiling effect of this measure limit the clinical significance of this finding.

Psychopathy was assessed using the Psychopathy Checklist-Revised. Prior to administering the Psychopathy Checklist-Revised (PCL-R; Hare, 1991) on the Exhibitionist sample, a random sample of 20 cases of a variety of sex offenders, which had been scored previously by a research assistant, who participated in a training workshop conducted by an expert on PCL-R administration and scoring, were re-scored by the primary researcher. Inter-rater

reliability for the random sample, assessed by means of a Pearson product moment coefficient, was judged to be satisfactory, $r = .8521$, $p < .05$. Thirty-two subjects were excluded from the analysis because the records had insufficient information.

As indicated in Table 4, Exhibitionists scored significantly lower than Rapists on the PCL- R Total, ($M = 14.91$ and 25.17 respectively), indicating less psychopathic characteristics. 5.3% (n = 10) of the Exhibitionists and 35% (n = 27) of the Rapists met the criterion for psychopathy (total score ≥ 30).

An exploratory consideration of the two major factors into which the PCL- R items can be grouped indicated that Rapists scored significantly higher than Exhibitionists on Factor 1 (Psychopathic Personality), ($M = 10.07$ and 6.03); as well as on Factor 2 (Criminal Lifestyle), ($M = 11.53$ and 7.40).

In summary, results of psychological tests indicated that there were no group differences between the Exhibitionist and Rapist groups in the area of psychological maladjustment as measured by alcoholism or degree of psychiatric disturbance. There was however a significant difference between the normal and clinical groups with regards to sexual functioning. Both Exhibitionists and Rapists reported significantly poorer sexual functioning than did Normal contrasts, although they did not differ from each other. Similarly, both Exhibitionists and Rapists reported significantly more permissive attitudes about sex with children than the Normal contrasts, although they did not differ from each other. Finally, the Exhibitionist group demonstrated significantly less psychopathic traits than Rapists.

Phallometric Assessment

The analyses of phallometric assessments presented in Table 5, revealed that the

Table 5
Phallometric Measures for Exhibitionists, Rapists and Normal Contrasts

Variable	Exhibitionist (n)	Rapist (n)	Normal (n)	t	df	$p <$
Pedophile Index	1.47 ± 1.94 (112)		0.58 ± 0.57 (100)	4.615	131.948	.001
Pedophile Assault Index	0.73 ± 0.76 (111)		0.76 ± 0.65 (100)	-.217	209	.829
Rape Index	0.58 ± 0.89 (196)	0.67 ± 0.66 (81)		-.813	275	.417
Assault Index	0.14 ± 0.30 (194)	0.20 ± 0.33 (80)		-1.256	136.329	.211

Exhibitionist group's responses on the Pedophile Index were significantly higher than the Normal Contrast group's ($\underline{M}$ = 1.47 and 0.58 respectively), indicating greater sexual arousal in response to children. No other differences were evident with these measures.

In summary, in terms of deviant sexual arousal, a significant difference was found only on the Pedophile Index, with Exhibitionists demonstrating a deviant response in response to images of children unlike the Normal Contrasts.

Summary

Regarding demographic and historical data, Exhibitionists were more educated than Rapists, but less than the Normal contrasts. Compared with Rapists, Exhibitionists were more likely to be married, to deny their index offence, and to report a family history of drug abuse. Rapists were more likely to report personal histories of drug abuse, intoxication at the time of the offence, a family history of physical abuse, family violence and outside placement before 16 years. Psychological tests revealed no differences in the degree of psychological maladjustment on measures of alcoholism, psychiatric disturbance, or general hostility. Exhibitionists and Rapists however, both reported poorer sexual functioning and more permissive attitudes about child molestation than the Normal Contrasts. On phallometrics, Exhibitionists demonstrated significantly more deviant responses to scenarios of children than Normal Contrasts.

A Comparison between the Sexual, Violent and Criminal Recidivist and Non-Recidivist Exhibitionist groups.

Results of the Survival Analysis

The life table method of analyzing survival functions was selected to examine the rate of re-offending throughout the follow-up period for the Exhibitionist group. This method is

appropriate when the number of subjects entering and withdrawing from a time interval vary (Norusis, 1994). Life tables and Survival functions were calculated for each of the three categories of recidivism, sexual, violent (including sexual) recidivism and criminal (including violent and sexual). Follow-up time, which was calculated from the date the offender was first at risk to re-offend, until the date that final CPIC information was received (30 May, 1998), ranged from one day to 15 years after the assessment or conviction for the index offence, with an average of 6.84 (SD = 4.29) years. Figure 1 illustrates the survival rates of the Exhibitionists for each of the three categories of recidivism. The percentage of Exhibitionists who were either charged or convicted of a sexual, violent, or criminal offence by the fifteenth year was 11.7%, 16.8% and 32.7% respectively. By the end of the fifth year at risk, recidivism rates for sexual, violent and criminal acts were approximately 8%, 12.1% and 25% respectively. By the end of the tenth year at risk, the corresponding failure rates were 11%, 15% and 30.4%. As suggested by Figure 1, Recidivists incurred new charges or convictions at a rapid rate for the initial five years at risk, after which the rate of recidivism dropped and continued to taper off for the rest of the follow-up period. Notwithstanding the fact that these figures are probably under-estimates, these rates contradict the popular view that sexual offenders inevitably reoffend, a finding which is supported by that of Hanson and Bussiere (1989) who noted that even in studies with thorough records searches and follow- up periods of between15 - 20 years, the recidivism rates almost never exceeded 40%. Low rates of recidivism are nevertheless a cause for concern, given the serious effects of sexual victimization (Hanson & Bussiere, 1998).

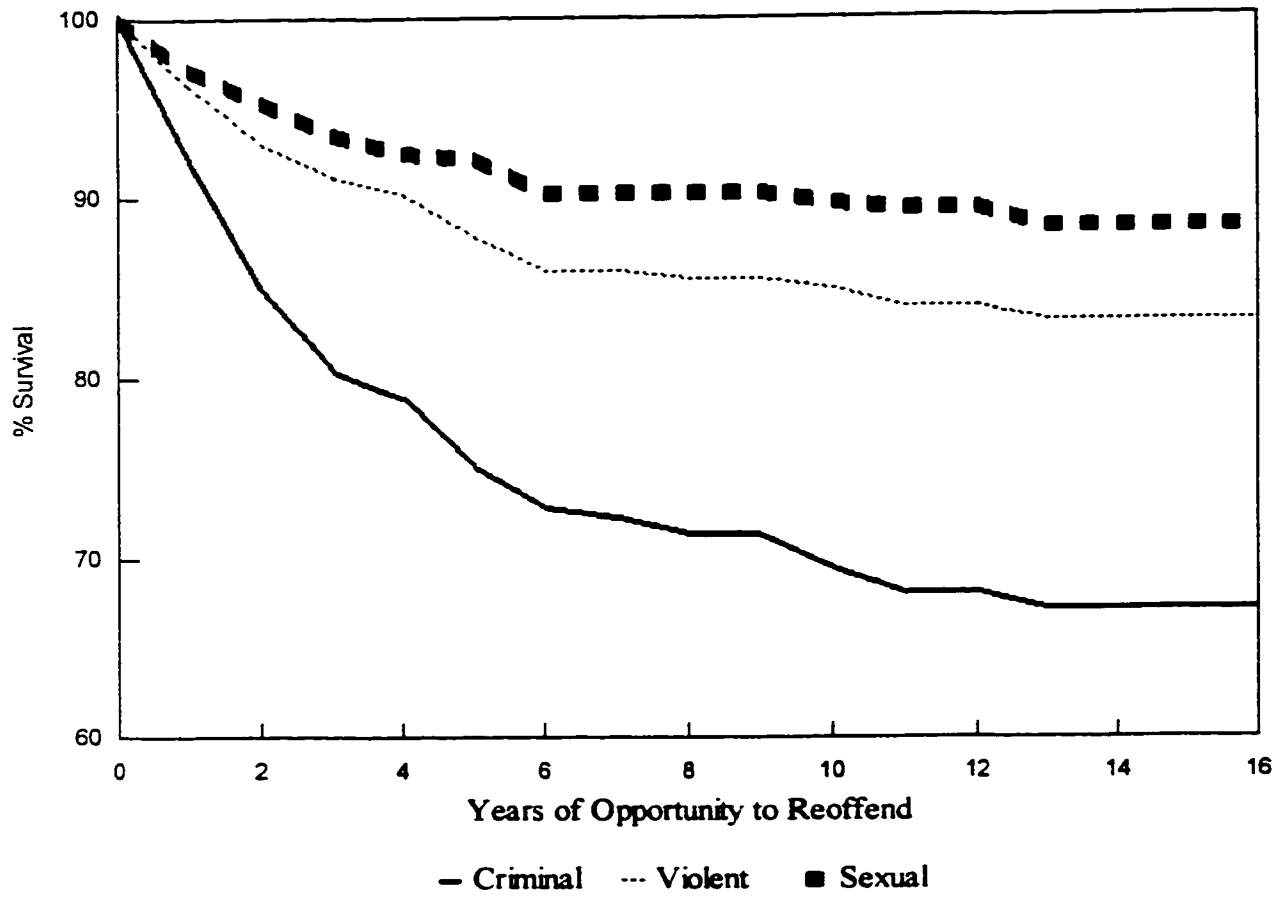

Figure 1. Survival Graph for Sexual, Violent and Criminal Recidivism for Exhibitionists

Demographic and Historical Variables for Recidivist and Non-Recidivist Exhibitionists.

Sexual Recidivism

As indicated in Table 6, the analysis of the data revealed that when compared with Non-Recidivists, Sexual Recidivists were significantly less educated (M = 11.08 and 11.97 respectively); and more likely to report being under the influence of substances at the time of the offence (39.1% vs 17.2% respectively). There were no significant differences between Sexual Recidivists and Non-Recidivists with regards to either age at the time of the assessment, or admitting to the index offence. There were also no significant differences with regards to personal or family historical variables.

Violent Recidivism

As indicated in Table 6, the analysis of the data revealed that Violent Recidivists, compared with Non-Recidivists were significantly less educated (M =11.09 and 12.02 respectively); more likely to be single at the time of the assessment (88.2% vs 58.3% respectively); and more likely to report being influenced by substances at the time of the offence (33.3% vs 17.1% respectively). The analysis revealed no significant differences between Violent Recidivists and Non-Recidivists with regards to age at the time of the assessment or admitting to the index offence. There were also no significant differences between Violent Recidivists and Non-Recidivists with regards to personal or family historical variables.

Criminal Recidivism

As indicated in Table 6, the analysis of the data revealed that Criminal Recidivists, compared with Non-Recidivists, were significantly younger at the time of the initial assessment, (M = 29.04 and 32.47 respectively); less educated (M = 10.78 and 12.43 respectively); more likely to be

Table 6

Demographic and Self-Reported Characteristics of Recidivist and Non-Recidivist Exhibitionists

	Sexual Recidivism (a)		Violent Recidivism (b)		Criminal Recidivism (c)				
Variable	yes	no	yes	no	yes	no	t or χ^2	*df*	$p <$
Age	29.85 ± 11.21 (26)	31.49 ± 9.66 (195)	28.85 ± 9.96 (39)	31.82 ± 9.76 (182)	29.04 ± 9.00 (75)	32.47 ± 10.12 (146)	a) .800 b)1.722 c) -2.477	a) 219 b) 219 c) 219	a) .424 b) .086 c) .014
Education	11.08 ± 1.72 (24)	11.97 ± 3.04 (178)	11.09 ± 1.85 (35)	12.02 ± 3.08 (167)	10.78 ± 2.10 (69)	12.43 ± 3.14 (133)	a) 2.112 b) 2.384 c) -4.428	a) 45.455 b) 79.361 c)187.507	a) .040 b) .020 c) .001
Living Alone	86.4% (19)	60.4% (113)	88.2% (30)	58.3% (102)	77.6% (52)	56.3% (80)	a)5.690 b)10.974 c) 8.854	a)1 b)1 c) 1	a) .017 b) .001 c) .003
Admit Index Offence	8.7% (2)	14.7% (28)	11.1% (4)	14.7% (26)	15.5% (11)	13.4% (19)	a) --- b) .317 c) .175	a) --- b) 1 c) 1	a) .750[1] b) .574 c) .676
Drug Abuse History	47.8% (11)	36.4% (63)	48.5% (16)	35.6% (58)	50.0% (33)	31.5% (41)	a) 1.125 b) 1.944 c) 6.349	a) 1 b) 1 c) 1	a) .289 b) .163 c) .012
Sexual Abuse History	17.4% (4)	27.0% (50)	19.4% (7)	27.3% (47)	28.6% (20)	24.6% (34)	a) .988 b) .962 c) .374	a) 1 b) 1 c) 1	a) .320 b) .327 c) .541
Physical Abuse History	23.5% (4)	21.8% (32)	29.6% (8)	20.4% (28)	28.6% (16)	18.5% (20)	a) --- b) 1.112 c) 2.175	a) --- b) 1 c) 1	a) 1.000[1] b) .292 c) .140
Family History of Violence	20.8% (5)	19.6% (30)	26.5% (9)	18.2% (26)	23.0% (14)	18.1% (21)	a) --- b) 1.190 c) .592	a) --- b) 1 c) 1	a)1.000[1] b) .275 c) .442

Table 6
Continued

Variable	Sexual Recidivism (a)		Violent Recidivism (b)		Criminal Recidivism (c)		t or χ^2	df	$< p$
	Yes	No	Yes	No	Yes	No			
Outside placement prior to 16 yrs	9.1% (2)	14.5% (26)	11.4% (4)	14.5% (24)	12.5% (9)	14.7% (19)	a) --- b) --- c) .191	a) --- b) --- c) 1	a) .745[1] b) .792[1] c) .622
Family History of Alcoholism	43.5% (10)	44.7% (67)	46.9% (15)	44.0% (62)	47.7% (31)	42.6% (46)	a) .011 b) .089 c) .427	a) 1 b) 1 c) 1	a) .915 b) .765 c) .513
Family History of Drug Abuse	15.0% (3)	14.7% (20)	24.1% (7)	12.6% (16)	23.2% (13)	10.0% (10)	a) --- b) --- c) 4.987	a) --- b) --- c) 1	a)1.000[1] b) .145[1] c) .026
Family History of Mental Illness	19.0% (4)	20.8% (30)	17.2% (5)	21.3% (29)	17.5% (10)	22.2% (24)	a) --- b) .243 c) .499	a) --- b)1 c) 1	a) 1.000[1] b) .622 c) .480
Family History of Criminality	10.0% (2)	9.2% (12)	14.3% (4)	8.2% (10)	11.3% (6)	8.2% (8)	a) --- b) --- c) .383	a) --- b) --- c) 1	a)1.000[1] b) .298[1] c) .536
Influence of Substances on Index Offense	39.1% (9)	17.2% (30)	33.3% (11)	17.1% (28)	35.4% (23)	12.1% (16)	a) --- b) 4.575 c) 14.845	a) --- b) 1 c) 1	a).023[1] b) .032 c) .001

[1] Fisher's Exact Test. Exact Significance (2-sided)
--- not applicable

single at the time of the assessment (77.6% vs. 56.3% respectively); more likely to report being influenced by substances at the time of the index offence (35.4% and 12.1% respectively); and reported higher rates of both personal histories of drug abuse (50% vs. 31.5%); and family histories of drug abuse (23.2 vs 10%). There were no significant differences between Recidivists and Non-Recidivists with regards to Admitting the Offence, Outside Placement prior to 16 years, or Family Histories of Alcohol Abuse, Mental Illness or Criminality.

In summary, with regard to demographic and historical variables, both the Sexual and the Violent Recidivists, when compared with non-Recidivists, were generally less educated, and more likely to be single and to report the influence of substances at the time of the index offence. Criminal Recidivists when compared with Non-Recidivists were generally younger, less educated, more likely to be single, with self-reports of both personal and family histories of drug abuse, and of being influenced by substances at the time of the index offence.

Psychological Tests Results of Recidivists and Non-Recidivists

Sexual Recidivism

In terms of psychological maladjustment, as indicated in Table 7, the analyses revealed no significant differences between Sexual Recidivists and Non-Recidivists scores on alcoholism, as measured by the Michigan Alcohol Screening Test; or general hostility, as measured by the Buss-Durkee Hostility Inventory. The Recidivists did however, score significantly higher on psychiatric disturbance as measured by the Brief Psychiatric Rating Scale ($\underline{M}$ = 14.73 and 10.20 respectively).

No significant differences were evident between Sexual Recidivists and Non-Recidivists with regard to sexual functioning as measured by the Derogatis Sexual Functioning Inventory; sexual attitudes as measured by the Cognition Scale; or psychopathy as measured by the

Table 7

Psychological Test Scores of Recidivist and Non-Recidivist Exhibitionists

	Sexual Recidivism (a)		Violent Recidivism (b)		Criminal Recidivism (c)				
Variable	Yes	No	Yes	No	Yes	No	*t*	*df*	p <
Michigan Alcohol Screening Test	5.00 ± 12.07 (11)	10.09 ± 15.54 (118)	11.50 ± 16.87 (18)	9.36 ± 15.10 (111)	16.57 ± 19.13 (35)	7.09 ± 12.81 (94)	a) 1.056 b) -.549 c) 2.716	a) 127 b) 127 c) 45.830	a) .293 b) .584 c) .005[1]
Buss Durkee Hostility Inventory	26.44 ± 12.48 (25)	27.99 ± 11.32 (184)	27.86 ± 11.75 (37)	27.80 ± 11.41 (172)	30.51 ± 11.46 (71)	26.42 ± 11.23 (138)	a) .636 b) -.033 c) 2.475	a) 207 b) 207 c) 207	a).525 b) .974 c) .014
Brief Psychiatric Rating Scale	14.73 ± 6.45 (11)	10.20 ± 8.31 (106)	13.06 ± 7.23 (18)	10.12 ± 8.16 (99)	11.84 ± 9.04 (31)	10.19 ± 7.94 (86)	a) -1.751 b) -1.426 c) -.957	a) 115 b) 115 c) 115	a).042 b).157 c) .340
Derogatis Sexual Functioning Inventory	33.00 ± 13.01 (24)	36.51 ± 13.45 (179)	32.43 ± 12.07 (35)	36.86 ± 13.59 (168)	33.59 ± 12.80 (69)	37.39 ± 13.59 (134)	a)1.206 b)1.788 c) 1.927	a) 201 b) 201 c) 201	a) .229 b) .038[1] c) .028[1]
Cognition Scale	4.52 ± 0.54 (16)	4.51± 0.50 (139)	4.41 ± 0.57 (25)	4.53 ± 0.49 (130)	4.38 ± 0.57 (48)	4.57 ± 0.47 (107)	a) -.136 b) 1.055 c) 2.198	a) 153 b) 153 c) 153	a) .892 b) .293 c) .029
Psychopathy Checklist - Revised Total	17.47 ± 10.07 (24)	14.54 ± 8.29 (166)	18.83 ± 9.27 (35)	14.02 ± 8.17 (155)	18.82 ± 8.62 (69)	12.68 ± 7.72 (121)	a) -1.572 b)-3.069 c) 5.046	a) 188 b) 188 c) 188	a) .118 b) .002 c) .001
Factor 1	6.90 ± 4.60 (24)	5.90 ± 4.02 (164)	7.64 ± 4.27 (34)	5.67 ± 3.99 (154)	7.48 ± 4.28 (69)	5.19 ± 3.76 (119)	a)-1.112 b)-2.575 c) -3.833	a) 186 b) 186 c) 186	a) .267 b) .011 c) .001
Factor 2	8.78 ± 5.56 (20)	7.20 ± 4.70 (134)	9.21± 5.06 (30)	6.96 ± 4.69 (124)	9.29 ± 4.78 (58)	6.26 ± 4.51 (96)	a) -1.373 b) -2.319 c) -3.592	a) 152 b) 152 c) 152	a) .172 b) .022 c) .001

[1] one-tail t- test

Psychopathy Checklist-Revised Total.

Violent Recidivism

In terms of psychological maladjustment, as indicated in Table 7, the analyses revealed there were no significant differences between the Violent Recidivist and Non-Recidivist groups in terms of alcoholism, as measured by the Michigan Alcohol Screening Test; general hostility, as measured by the Buss-Durkee Hostility Inventory; or psychiatric disturbance as measured by the Brief Psychiatric Rating Scale. In terms of sexual attitudes, as measured by the Cognition Scale, there was no significant difference between the Recidivist and Non-Recidivist groups.

In terms of sexual functioning, as measured by the Derogatis Sexual Functioning Scale, a significant difference emerged, with Violent Recidivists reporting poorer sexual functioning than Non-Recidivists ($\underline{M}$ = 32.43 and 36.86 respectively).

Regarding their degree of psychopathy, as assessed by the Psychopathy Checklist-Revised Total, Violent Recidivists scored significantly higher than Non-Recidivists ($\underline{M}$ = 18.83 and 14.02 respectively), indicating more psychopathic characteristics. An exploratory consideration of the two major factors into which the PCL-R items can be grouped indicated that Recidivists scored significantly higher than Non-Recidivists on Factor 1 (Psychopathic Personality), ($\underline{M}$ = 7.64 and 5.67 respectively); as well as on Factor 2 (Criminal Lifestyle), ($\underline{M}$ = 9.21 and 6.96 respectively).

Criminal Recidivism

In terms of psychological maladjustment, as indicated in Table 7, the analyses revealed that the Criminal Recidivists compared to the Non-Recidivists scored significantly higher on both the Michigan Alcohol Screening Tests ($\underline{M}$ = 16.57 vs.7.09 respectively); and the Buss-Durkee Hostility Inventory ($\underline{M}$ = 30.51 vs. 26.42 respectively). The differences between the Recidivist

and Non-Recidivist groups on the Brief Psychiatric Rating Scale did not achieve significance.

In terms of sexual functioning, as measured by the Derogatis Sexual Functioning Scale, as indicated in Table 7, Recidivists reported significantly poorer sexual functioning than the Non-Recidivist group ($\underline{M}$ = 37.39 vs. 33.59 respectively).

In terms of sexual attitudes as measured by the Cognition Scale, the Recidivist group scored significantly lower than the Non-Recidivists demonstrating more permissive beliefs with regard to adult sexual contact with children ($\underline{M}$ = 4.38 vs 4.57 respectively). This result must be interpreted cautiously, because although statistically significant, the marginal mean differences and the high ceiling effect of this measure limit the clinical significance of this finding.

Recidivists were also compared to Non-Recidivists with regard to their degree of psychopathy as assessed by the Psychopathy Checklist-Revised Total; Recidivists scored significantly higher than Non-Recidivists on the PCL-R, ($\underline{M}$ = 18.81 and 12.68 respectively), indicating more psychopathic characteristics. An exploratory consideration of the two major factors into which the PCL-R items can be grouped indicated that Recidivists scored significantly higher than Non-Recidivists on Factor 1 (Psychopathic Personality), ($\underline{M}$ = 7.48 and 5.18 respectively); as well as on Factor 2 (Criminal Lifestyle), ($\underline{M}$ = 9.29 and 6.26).

In summary, psychological test scores indicated that when compared with their respective Non-Recidivist groups: a) Sexual Recidivists reported a higher degree of psychiatric disturbance; b) Violent Recidivists evidenced less satisfactory sexual functioning and more psychopathic traits; and c) Criminal Recidivists differed with regard to a higher degree of psychological maladjustment in terms of both alcoholism (MAST) and general hostility (Buss-Durkee), but not psychiatric disturbance (BPRS); poorer sexual functioning; more permissive attitudes about sex with children,

and more psychopathic traits.

Phallometric Assessment Measures of the Recidivist and Non-Recidivists

Sexual Recidivism

As indicated in Table 8, the analyses of phallometric assessment measures revealed no significant differences between the Sexual Recidivist and Non-Recidivist groups.

Violent Recidivism

As indicated in Table 8, the analyses of phallometric assessment measures revealed no significant differences between Recidivist and Non-Recidivist groups.

Criminal Recidivism

As indicated in Table 8, the analyses of phallometric assessment measures revealed that the Criminal Recidivists' responses on the Pedophile Index were significantly higher than the Non-Recidivists' (M = 1.90 and 1.19), indicating greater sexual arousal in response to children. No other differences were evident with these measures.

In summary, in terms of deviant sexual arousal, Criminal Recidivism was the only category to yield significant results, with Criminal Recidivists demonstrating a higher Pedophile Index than Non-Recidivists, indicative of a significantly more deviant response to scenarios of children.

Previous Offence History of Recidivists and Non-Recidivists

The three categories of Recidivists were compared to Non-Recidivists with regard to their histories of previous sexual, violent and criminal offences, as recorded by the Canadian Police Information Center (CPIC). Previous offences were categorized within accumulative categories, with 'sexual' referring to exclusively sexual offences; 'violent' referring to violent offences of both a sexual or non-sexual nature; and 'criminal' referring to any type of offence, including those

Table 8
Phallometric Measures of Recidivist and Non-Recidivist Exhibitionists

	Sexual Recidivism (a)		Violent Recidivism (b)		Criminal Recidivism (c)				
Variable	Yes	No	Yes	No	Yes	No	t	df	$p <$
Pedophile Index	1.58 ± 1.85 (13)	1.38 ± 1.72 (99)	1.58 ± 1.78 (18)	1.37 ± 1.73 (94)	1.90 ± 2.39 (39)	1.19 ± 1.44 (73)	a) -.390 b) -.472 c) 1.686	a) 110 b) 110 c) 53.165	a) .697 b) .638 c) .049[1]
Pedophile Assault Index	0.65 ± 0.56 (13)	0.74 ± 0.75 (98)	0.57 ± 0.51 (18)	0.76 ± 0.76 (93)	0.70 ± 0.69 (39)	0.74 ± 0.76 (72)	a) .422 b)1.009 c) -.312	a) 109 b) 109 c) 109	a) .674 b) .315 c) .378[1]
Rape Index	0.66 ± 1.02 (24)	0.52 ± 0.66 (172)	0.62 ± 0.85 (37)	0.51 ± 0.65 (159)	0.63 ± 0.83 (73)	0.49 ± 0.66 (123)	a) -.893 b) -.867 c) 1.325	a) 194 b) 194 c) 194	a) .373 b) .387 c) .094[1]
Assault Index	0.17 ± 0.32 (25)	0.14 ± 0.29 (170)	0.13 ± 0.26 (38)	0.15 ± 0.30 (157)	0.12 ± 0.28 (73)	0.16 ± 0.31 (121)	a) -.371 b) .265 c) -.868	a) 193 b) 193 c) 192	a) .711 b) .792 c) .193[1]

[1] one- tail t-test

of a sexual or violent nature. Table 9 summarizes these findings. According to CPIC records, the total number of previous sexual, violent and criminal offences incurred, ranged from 0-5, 0-7 and 0-27 respectively for Recidivists; and from 0-2, 0-3 and 0-16 respectively for Non-Recidivists.

Sexual Recidivism

Sexual Recidivists compared to Non-Recidivists incurred significantly more previous sexual offences, (M = 0.85 and 0.26 respectively); and significantly more previous criminal offences, (M = 5.04 and 2.21 respectively). The differences between the Sexual Recidivist and Non-Recidivist groups regarding a previous history of violent offences did not achieve significance.

Violent Recidivism

Violent Recidivists compared to Non-Recidivists incurred significantly more previous sexual offences, (M = 0.72 and 0.18); significantly more previous violent offences (M = 0.97 and 0.34); and significantly more previous criminal offences, (M = 4.97 and 1.86 respectively).

Criminal Recidivism

Criminal Recidivists compared to Non-Recidivists incurred significantly more previous sexual offences, (M = 1.11 and 0.19 respectively); significantly more previous violent offences (M = 1.52 and 0.31), and significantly more previous criminal offences, (M = 6.19 and 1.05 respectively).

In summary, the analysis of CPIC data revealed that when compared with their respective Non-Recidivist counterparts, the Sexual Recidivist group incurred significantly more sexual and criminal offences; while both the Violent and the Criminal Recidivist groups incurred significantly more previous offences in each of the three offence categories: sexual, violent and criminal.

Table 9
Criminal Offence History of Recidivist and Non-Recidivist Exhibitionists

	Sexual Recidivism (a)		Violent Recidivism (b)		Criminal Recidivism (c)				
Variable	yes	no	yes	no	yes	no	t or χ^2	*df*	$p <$
Number of Previous Sexual Offences	0.85 ± 1.69 (26)	0.26 ± 0.87 (195)	0.72 ± 1.39 (39)	0.18 ± 0.52 (182)	1.11 ± 2.49 (75)	0.19 ± 0.91 (146)	a) -1.734 b) -2.393 c) -3.077	a) 26.780 b) 40.264 c) 84.341	a) .047[1] b) .021 c) .003
Number of Previous Violent Offences	1.15 ± 2.48 (26)	0.45 ± 1.12 (195)	0.97 ± 1.74 (39)	0.34 ± 0.84 (182)	1.52 ± 2.93 (75)	0.31 ± 1.25 (146)	a) -1.437 b) -2.240 c) -3.423	a) 26.372 b) 41.835 c) 87.969	a) .162 b) .030 c) .001
Number of Previous Criminal Offences	5.04 ± 8.30 (26)	2.21± 4.95 (195)	4.97 ± 7.16 (39)	1.86 ± 4.33 (182)	6.19 ± 9.61 (75)	1.05 ± 3.38 (146)	a) -1.700 b) -2.617 c) -4.491	a) 27.421 b) 44.142 c) 83.562	a) .050[1] b) .012 c) .001

[1] one-tail t- test

Summary of Recidivist and Non-Recidivist Group Characteristics

Sexual Recidivists

In terms of demographic and historical variables, Sexual Recidivists when compared with non-Recidivists were less educated, more often single, with a greater rate of self-reported substance abuse at the time of the index offence. In terms of psychological test scores, Sexual Recidivists when compared with Non-Recidivists demonstrated a greater degree of psychological maladjustment as reflected by higher levels of psychiatric disturbance. In terms of phallometric measures, there were no significant differences between Recidivists and Non-Recidivists. Lastly, with regard to CPIC records, Sexual Recidivists incurred significantly more previous sexual and criminal offences than Non-Recidivists.

Violent Recidivists

In terms of demographic and historical variables, Violent Recidivists when compared with Non-Recidivists were less educated, more often single, with a greater rate of self-reported substance abuse at the time of the index offence. In terms of psychological test scores Violent Recidivists when compared with Non-Recidivists reported less satisfactory sexual functioning, and demonstrated more psychopathic characteristics. With regard to phallometric measures, there were no significant differences between Violent Recidivists and their Non-Recidivist counterparts. Lastly, Violent Recidivists incurred significantly more previous offences than Non-Recidivists in each of the three offence categories: sexual, violent and criminal.

Criminal Recidivists

In terms of demographic and historical variables, Criminal Recidivists when compared with Non-Recidivists, were generally younger, less educated, single, with more self-reported personal and family histories of drug abuse, and of the influence of substances at the time of the index offence. In terms of psychological test scores, Criminal Recidivists when compared

with Non-Recidivists, demonstrated a greater degree of psychological maladjustment as reflected by higher levels of alcoholism and general hostility; more permissive beliefs with regard to adult sexual contact with children; more psychopathic characteristics, and a trend towards less sexual satisfaction. In terms of phallometric measures, Criminal Recidivists demonstrated a higher deviant response to children than the Non-Recidivists, as evidenced on the Pedophile Index. Lastly, Criminal Recidivists incurred significantly more previous offences than Non-Recidivists in each of the three offence categories: sexual, violent and criminal.

Predicting Recidivism: Discriminant Function Analysis Results

Sexual Recidivism

The continuous variables that significantly discriminated between Sexual Recidivists and Non-Recidivists were entered into a step-wise discriminant function analysis to assess the combination of factors that most successfully distinguished between these two groups of exhibitionists. These variables included 1) Education, 2) Brief Psychiatric Rating Scale, 3) Number of Previous Sexual Offences (CPIC), and 4) Number of Previous Criminal offences (CPIC). The loading matrix of correlations between predictors and the discriminant functions suggested that the variable that maximally discriminated between Sexual Recidivists and Non-Recidivists was the Number of Previous Sexual Offences (CPIC). The result was a significant discriminant function, χ^2 (1, $\underline{N}$ =108) = 4.793 , $\underline{p}$ <.029. The procedure correctly classified 89.6% of the original group. This represents a Relative Improvement Over Chance (RIOC) (Loeber & Dishion, 1983) of 13.4%. The index of predictive efficiency used here is called Relative Improvement Over Chance (RIOC); it summarizes the correct predictions in a two-

by-two table and corrects them for chance and for marginal differences in the table that normally set upper limits as to the maximum number of correct predictions that can be made. RIOC varies from 0 to 100% for predictors that do better than chance alone (Loeber, 1990).

Violent Recidivism

The continuous variables that significantly discriminated between Violent Recidivists and Non-Recidivists were entered into a step-wise discriminant function analysis to assess the combination of factors that most successfully distinguished between these two groups of exhibitionists. These variables included 1) Education, 2) Derogatis Sexual Functioning Inventory, 3) PCL-R Total, 4) Number of Previous Sexual Offences (CPIC), and 5) Number of Previous Criminal offences (CPIC). Number of Previous Violent Offences was excluded from the discriminant function analysis because of its high correlation with other two CPIC variables. The loading matrix of correlations between predictors and the discriminant functions suggested that the variable that maximally discriminated between Violent Recidivists and Non-Recidivists was the Number of Previous Sexual Criminal Offences (CPIC). The result was a significant discriminant function, χ^2 (1, $\underline{N}$ =164) = 9.664 , $\underline{p}$ <.002. The procedure correctly classified 84.6% of the original group. This represents a RIOC of 10.8%.

Criminal Recidivism

The continuous variables that significantly discriminated between Criminal Recidivists and Non-Recidivists were entered into a step-wise discriminant function analysis to assess the combination of factors that most successfully distinguished between these two groups of exhibitionists. These variables included 1) Age, 2) Education Level, 3) Buss-Durkee Hostility Inventory, 4) Derogatis Sexual Functioning Inventory, 5) PCL-R Total, 6) Number of

Previous Sexual Offences (CPIC), and 7) Number of Previous Criminal offences (CPIC). Number of Previous Violent Offences was excluded from the discriminant function analysis because of its high correlation with the other two CPIC variables. The loading matrix of correlations between predictors and the discriminant functions suggested that the variables that maximally discriminated between Criminal Recidivists and Non-Recidivists were: 1) Education Level and 2) the Number of Previous Criminal Offences (CPIC) respectively. The result was a significant discriminant function, χ^2 (3, N = 163) = 37.042, $p < .001$. The procedure correctly classified 71.8 % of the original group. This represents a RIOC of 20.5%.

For research interest, the variable PCL-R Total Score was put into a discriminant function analysis alone. The result was a significant discriminant function χ^2 (1, N = 190) = 22.298, $p < .001$. The procedure correctly classified 69.5 % of the original group. This represents a RIOC of 22.7%.

In summary, results of discriminant function analyses indicated that i) the single variable to maximally discriminate between both Sexual Recidivists and Non-Recidivists, and Violent Recidivists and Non-Recidivists respectively was the Previous Number of Sexual Offences (CPIC); ii) the combination of variables to maximally discriminate between Criminal Recidivists and Non-Recidivists were the Number of Previous Criminal Offences (CPIC) and Education Level; and iii) the PCL-R Total yielded similar results to this combination of variables.

Comparison between the Hands-on and Hands-off Sexual Recidivist Groups.

For the purposes of this exploratory investigation, a Sexual Recidivist was defined as any Exhibitionist who according to CPIC records was charged or convicted of a sexual offence at

any time during the follow up period subsequent to the index offence. This has the advantage of yielding the life-term probability of recidivism. A frequency analysis indicated that a total of 41 Exhibitionists went on to sexually recidivate after the index offence. Of these, 14 were accused of committing a 'hands-on' sexual offences, i.e. any sexual offence where there was bodily contact with the victim (e.g., sexual interference or sexual assault); and 27 were accused of 'hands-off' sexual offences, i.e. an offence of a sexual nature where there was no physical contact (e.g., exhibitionism or invitation to sexual touching).

Demographic and Historical Variables of Hands-on and Hands-off Sexual Recidivists

As indicated in Table 10, there were no significant differences between the Hands-on and Hands-off Sexual Recidivist groups in terms of either demographic data; Denial of the Index Offence, or on self-reported personal and familial historical variables.

Psychological Tests of Hands-on and Hands-off Sexual Recidivists

The analyses of psychological test scores presented in Table 11, revealed that with the exception of the scores on the Psychopathy Checklist-Revised, no other significant group differences were evident. As indicated on Table 11, the Hands-on Sexual Recidivist group scored significantly higher on the Psychopathy Checklist-Revised Total compared to the Hands-off group ($\underline{M}$ = 22.29 and 16.02 respectively), indicating more psychopathic traits. An exploratory consideration of the two major factors into which the PCL-R items can be grouped, revealed a significant group difference between the Hands-On and the Hands-Off group for Factor 1 (Psychopathic Personality), ($\underline{M}$ = 9.90 vs. 5.94), but not for Factor 2 (Criminal Lifestyle) ($\underline{M}$ = 9.60 vs. 9.37 respectively).

In summary, results of psychological tests indicated that there were no significant group

Table 10
Demographic and Self-Reported Characteristics of Hands-on and Hands-Off Sexual Recidivists

Variable	Hands - On (n)	Hands - Off (n)	t, χ^2	df	$p <$
Age	28.35 ± 9.11 (26)	31.43 ± 10.74 (14)	-.959	38	.344
Education	10.92 ± 1.72 (24)	11.00 ± 2.24 (13)	-.127	35	.900
Single	7.7% (1)	26.1% (6)	----	----	.382[1]
Admit to Index Offense	0% (0)	12.5% (3)	----	----	.538[1]
History of Drug Abuse	50.0% (5)	56.0% (14)	----	----	1.000[1]
History of Sexual Abuse	46.2% (6)	21.7% (5)	----	----	.153[1]
History of Physical Abuse	44.4% (4)	26.3% (5)	----	----	.407[1]
History of Family Violence	38.5% (5)	8.2% (4)	----	----	.243[1]
Outside Placement before 16 years	0.0% (0)	20.0% (5)	----	----	.295[1]
Family History of Alcohol Abuse	30.0% (3)	52.0% (13)	----	----	.285[1]

Variable	Hands - On (n)	Hands - Off (n)	t, χ^2	df	$p <$
Family History of Drug Abuse	11.1% (1)	19.0% (4)	----	----	1.000[1]
Family History of Mental Illness	22.2% (2)	13.0% (3)	.413	1	.604
Family History of Criminality	0.0% (0)	15.0% (3)	----	----	.532[1]
Substance Use at time of Index Offense	40.0% (4)	37.5% (9)	.019	1	1.000

[1] Fisher's Exact Test. Exact Significance (2-sided)
---- not applicable

Table 11
Psychological Test Scores of Hands-Off and Hands-On Sexual Recidivists

Variable	Hands - On (n)	Hands - Off (n)	*t*	df	*p* <
Michigan Alcohol Screening Test	14.86 ± 20.35 (7)	13.30 ± 18.04 (10)	-.166	15	.870
Buss Durkee Hostility Inventory	26.08 ± 11.00 (13)	29.88 ± 12.53 (26)	.930	37	.358
Brief Psychiatric Rating Scale	15.50 ± 3.21 (6)	11.40 ± 8.26 (10)	-1.151	14	.269
Derogatis Sexual Functioning Inventory	36.19 ± 14.17 (13)	32.76 ± 13.60 (25)	-.729	36	.471
Cognition Scale	4.41 ± 0.65 (10)	4.62 ± 0.29 (15)	.968	11.415	.353
Psychopathy Checklist - Revised Total	22.29 ± 7.15 (14)	16.02 ± 9.14 (23)	-2.186	35	.036
Factor 1	9.90 ± 2.70 (14)	5.94 ± 4.43 (23)	-3.370	34.991	.002
Factor 2	9.60 ± 4.80 (10)	9.37 ± 5.43 (20)	-.114	28	.910

differences between the Hands-On and Hands-Off Sexual Recidivist groups in the area of psychological maladjustment, sexual functioning, or sexual attitudes. The Hands-On group did however, demonstrate significantly more psychopathic traits in general than the Hands-Off group. It is interesting to note that personality traits rather than criminal lifestyle contributed to this difference.

Phallometric Assessment of the Hands-on and Hands-Off Sexual Recidivists

The analyses of phallometric assessments presented in Table 12, revealed that the Hands-on Sexual Recidivist group's responses on the Pedophile Index were significantly higher than the Hands-off group ($\underline{M}$ = 2.74 and 0.60 respectively), indicating greater sexual arousal in response to children. Similarly, the Hands-on Sexual Recidivist group's responses on the Rape Index were significantly higher than the Hands-off group ($\underline{M}$ = 1.06 and 0.28 respectively), indicating greater sexual arousal in response to rape scenarios. No other differences were evident with these measures. In summary, in terms of deviant sexual arousal, a significant difference was found on the Pedophile and Rape Indices, with Hands-on Sexual Recidivists demonstrating a higher deviant response to scenarios of children and rape compared to their Hands-Off counterparts.

Previous Offence Histories of Hands-on and Hands-off Sexual Recidivists

Finally, the CPIC records of the previous offence histories of Hands-On and Hands-Off Sexual Recidivists were compared in relation to the three accumulative offence categories: Sexual, Violent and Criminal. As indicated on Table 13, the Hands-On Sexual Recidivist group incurred both significantly more previous Criminal offences than the Hands-Off group ($\underline{M}$ = 9.64 vs. 3.50); and significantly more Violent offences than the Hands-Off group ($\underline{M}$ =

Table 12
Phallometric Measures of Hands - On and Hands - Off Sexual Recidivists

Variable	Hands - On (n)	Hands - Off	*t*	df	*p* <
Pedophile Index	2.74 ± 2.36 (9)	0.60 ± 0.59 (10)	-2.653	8.895	.014[1]
Pedophile Assault Index	0.85 ± 0.51 (9)	0.51 ± 0.52 (10)	-.143	17	.085[1]
Rape Index	1.06 ± 1.29 (12)	0.28 ± 0.43 (26)	-2.050	12.147	.032[1]
Assault Index	0.20 ± 0.40 (12)	0.08 ± 0.20 (26)	-.955	13.534	.357[1]

[1] one-tail t-test

Table 13
Criminal Offense History of Hands-On and Hands-Off Sexual Recidivists

Variable	Hands-On (n)	Hands-Off (n)	*t*	df	*p* <
Number of previous Sexual offenses	2.43 ± 3.90 (14)	0.58 ± 0.95 (26)	-.175	13.83	.051[1]
Number of previous Violent offenses	3.43 ± 4.70 (14)	0.58 ± 0.95 (26)	-2.245	13.569	.021[1]
Number of previous Criminal offenses	9.64 ± 9.84 (14)	3.50 ± 6.41 (26)	-2.107	19.095	.025[1]

[1] one-tail t-test

3.43 vs. 0.58). In terms of the history of previous sexual offences, there was evidence of a trend, with the Hands-On Sexual Recidivist group incurring more previous sexual offences than their Hands-Off counterparts ($\underline{M}$ = 2.43 vs. 0.58).

In summary, the analysis of CPIC data revealed that the Hands-on Sexual Recidivist group had an offence history of significantly more violent and criminal offences than the Hands-Off group. Also, a trend was evident with the Hands-on Sexual Recidivist group incurring more previous sexual offences than their Hands-Off counterparts.

Predicting Recidivism: Discriminant Function Analysis

The continuous variables that significantly differentiated between Hands-on and Hands-off Sexual Recidivists were entered into a step-wise discriminant function analysis to assess the combination of factors that most successfully distinguished between the two groups of offenders. These included the variables 1) PCL-R Total, 2) Pedophile Index, 3) Rape Index, 4) the Number of Previous Criminal offences (CPIC) and 5) the Number of Previous Violent offences. The loading matrix of correlations between predictors and the discriminant functions suggested that the variable that maximally discriminated between Hands-Off and Hands-On Sexual Recidivists was the Rape Index. The result was a significant discriminant function χ^2 (1, $\underline{N}$ = 18) = 6.531, $\underline{p} < .011$. The procedure correctly classified 78.9% of the original group. This represents a RIOC of 34%.

In summary, results of a discriminant function analysis indicated that the Rape Index of the phallometric assessment was the variable which maximally discriminated between Hands-Off and Hands-On Sexual Recidivists.

Summary

In terms of demographic and historical variables, there were no significant differences between Hands-On Sexual Recidivists and Hands-Off Sexual Recidivists. Similarly, results of psychological tests indicated no significant differences between the two groups with regard to psychological maladjustment, sexual functioning or sexual attitudes. Hands-On Sexual Recidivists however, demonstrated significantly more psychopathic characteristics than their Hands-Off counterparts, a difference significantly contributed to by personality characteristics rather than by criminal lifestyle items. In terms of deviant sexual arousal, a significant difference was found on both the Pedophile and Rape Index, with Hands-On Sexual Recidivists generally demonstrating a more deviant response to child molester and rape scenarios than their Hands-off counterparts. Lastly, with regard to offence histories, there was a significant difference between groups, with Hands-on Sexual Recidivists demonstrating significantly more previous violent and criminal offences than their hands-off counterparts. A discriminant function analysis yielded the Rape Index as the variable that maximally discriminated between the two groups.

Discussion

Description of the Population of Exhibitionists

This study primarily investigates a population of exhibitionists, the nature of which is central to the discussion and generalization of the findings. The population comprised all patients with exhibitionism who presented for assessment at a Sexual Behaviors Clinic, in the Forensic Department of a University affiliated Psychiatric Hospital. The data investigated were elicited at the initial psychiatric assessment of each participant, which for the vast majority of these patients occurred prior to court-sentencing and to receiving treatment. The participants differed with respect to treatment and court sentencing received during the follow-up period. Data regarding the proportion of participants treated and untreated was however unavailable. These factors have implications for the interpretation of all assessment data, in particular the dynamic predictor variables (Abel et al., 1985; Hanson & Bussiere, 1998; Proulx et al., 1997) and recidivism rates, because by design this study does not investigate the potential for change in recidivism risk as a consequence of either treatment or incarceration.

Generally, the characteristics of this population of exhibitionists were consistent with previous studies in terms of education, referral agents, co-morbidity, and victims. A notable exception was marital status, with only 43% of this group being currently or previously married or living in common-law relationships, compared to the two-thirds median computed by Blair and Lanyon (1981) in their summary of the literature. This is particularly noteworthy given that the majority of Exhibitionists in the current investigation presented in their thirties, and the mean age of the subjects in the nine studies summarized by Blair and Lanyon (1981) ranged from 20 to 34.8 years. Possible reasons for this discrepancy may be the varying nature

of the respective populations in the studies. The studies summarized by Blair and Lanyon (1981) had varying subject populations, most of whom had been arrested and convicted of sexual offences and were either in prison or receiving evaluation and treatment as ordered by the courts.

The description of referral sources indicated that the majority of Exhibitionists were referred for assessment by legal channels. Although one-quarter were referred by physicians, clinical records indicated that many contacted medical practitioners only on advice of their legal counsel. While it appears that exhibitionists generally do not seek psychiatric assistance voluntarily, the findings may be biased given that the Sexual Behaviors Clinic is primarily a hospital forensic service.

Although all subjects, by selection, were assessed as a consequence of their history of exhibitionistic behavior, only three-quarters were given a primary diagnosis of exhibitionism (DSM 111-R), and the remainder received as their primary diagnosis one of the range of paraphilias. Of those who received a primary diagnosis of exhibitionism, 19.4% were given secondary diagnoses of pedophilia, and 4.9% were given secondary diagnoses of rape. These findings are supported by the literature on the co-morbidity of the paraphilias (Abel et al.1985; Bradford et al., 1992). The numbers however, are relatively smaller than those computed by Abel et al. (1985) who found that in a group of 411 paraphilics, 29% of pedophiles and rapists respectively were also exhibitionists. A possible reason for this discrepancy may be that the Abel et al. (1985) study is biased towards serious offenders as many of the exhibitionists first came to notice for 'hands-on' sexual offences, in contrast to the subjects in this investigation who were referred primarily for exhibitionism. Furthermore, Abel et al.'s participants came

from a maximum security prison setting, Attica, compared to our group, who were mostly seen pre-court sentencing.

Education levels of the exhibitionists ranged from a minority with only a few years of elementary education, to one-quarter with a high school diploma and one-quarter with a tertiary education. This is consistent with Blair and Lanyon's (1981) report that the education of exhibitionists was comparable with that of the general population distribution.

Exhibitionists varied with regards to their preferred age of victim. This finding is consistent with the DSM-1V (APA, 1994) definition of exhibitionism which does not specify victim age. The finding that a high proportion of the Exhibitionists reported victimizing children exclusively has implications for other findings including evidence of comorbidity, cognitive distortions as evidenced on psychological tests, and sexual deviance as evidenced on phallometric measures. Findings of exhibitionism's comorbidity with child molestation has been reported by Canadian (Mohr et al., 1964) and British (Rooth, 1973) researchers. Of particular relevance to issues of recidivism are the group of exhibitionists who victimized both adults and children. This example of a lack of discrimination of paraphilic interests has been identified as a strong predictor of poor prognosis and recidivism (Abel et al., 1985).

Comparison of the Exhibitionists, Rapists and Normal Contrasts

This investigation examined differences in Exhibitionists, Rapists and Normal Contrasts on demographic, historical, psychological, and phallometric variables. Exhibitionists differed appreciably from Rapists, emerging as the less pathological of the two offender groups on several factors.

At the outset, it is important to note that the Rapist group was a contrast and not a control

group. The two offender groups were not matched on any of the variables, as the researcher did not want to contaminate either of the groups. Results indicated that the two offender groups differed significantly on Education and Marital Status. Furthermore, the Rapist group was a sample of convicted offenders, whereas virtually none of the Exhibitionists had been convicted of their index offence. These differences may have contributed to the subsequent findings.

Discriminating demographic and historical factors included the Exhibitionists' higher education and marital rates, their lower rates of negative childhood experiences including physical abuse, family violence and being fostered outside the home, their lower rates of drug abuse histories and fewer reports of substance use at the time of the offence. Surprisingly, more Exhibitionists than Rapists, although still in the minority, reported family histories of drug abuse. The two groups were, however, comparable on several demographic and historical factors, including age, rates of histories of sexual abuse, family mental illness and criminality.

The age-related finding that Exhibitionists tended to be in their early thirties at the initial assessment is noteworthy considering previous research findings. Blair and Lanyon (1981) reported that the age of onset of exhibitionistic behavior had a bimodal distribution with peaks during the mid-teens and early to mid-20s. Abel et al. (1985) noted that exhibitionism is amongst the paraphilias with the earliest onsets and therefore is likely to be sustained. The age of presentation at the assessment suggests that the subjects in this investigation probably had exhibited for several years before being apprehended or charged.

Exhibitionists were generally more educated than the Rapists, but less educated than the

Normal Contrasts. This difference between the Exhibitionists and Normal Contrasts is supported by the fact that the average number of years of education of the Exhibitionists is considerably lower than the general population of Canadians of similar age, 85% of whom graduate from high school (Human Resources Development Canada, 1997).

A greater proportion of Exhibitionists than Rapists were married or in common-law relationships. The proportion of Exhibitionists married or in common-law relationships was, however, significantly lower than both the normal contrast group and the national rate of 75% for Canadian men (Nault, 1997).

As many as 85.9% of Exhibitionists either denied or claimed amnesia for the index offence compared with 56.3% of Rapists. It is well established that denial among men accused or convicted of sexual offences is high (Abel et al., 1989; Marshall & Barbaree,1989; Nugent & Kroner, 1996). A possible reason for this difference may be that while there is frequently physical evidence of rape in the form of injuries to the victim, there is often only eye-witness testimony in cases of exhibitionism, making the event easier to deny.

Central to the discussion of the historical and psychological variables is the fact that all the psychometric assessment tools employed in this study elicited information in the form of self-reports, with the exception of the Psychopathy Checklist-Revised. Freund et al. (1988) have cautioned the researcher in accepting self-reports, stating that because the suffering of exhibitionists is caused mainly by social and legal disapproval of their anomalous sexual behavior, one has to expect both intentional and unintentional distortions in their self reports. Proportions may therefore reflect only the lower limits of the range in which these behaviors are likely to be found.

A self-report of the influence of substances at the time of the index offence was more prevalent amongst Rapists than Exhibitionists. While this result may be influenced by the fact that most Exhibitionists denied their offence, it is consistent with previous research. The National Police Force Survey found the use of substances was seldom a factor in exhibitionism (Badgely et al., 1984). Similarly, results of an earlier Canadian study indicated that only 1.9% of exhibitionists were intoxicated when the offence was committed (Mohr et al., 1964). Certainly, some offenders believe that because substance abuse always precedes their deviant sexual behavior, it may be a cause of the behavior (Abel et al., 1989). Abel et al., (1989), however, notes that because the current legal system condones various behaviors which occur within the context of substance abuse, some sex offenders also employ such justifications to explain their inappropriate sexual behavior. There is also the possibility that many of the Rapists used alcohol at the time of the offence to 'beef up courage'.

The self-reported psychological inventories used in the present investigation were not useful in discriminating between the two offender groups. Possible reasons for this finding include the fact that the majority of these tests were not designed for use with either forensic populations or sexual offenders, and the tendency for distortion inherent in self-reports (Freund et al., 1988). Also, these findings may have been confounded by the fact that the Rapist group was significantly less educated than the Exhibitionist group. Their respective education levels may have influenced their performance on the psychometric assessment measures, given that reading skills are required to complete these tests.

In the area of psychological maladjustment, the two offender groups and the Normal Contrast group were comparable with regards to levels of alcoholism (MAST), general

hostility (BDHI) and psychiatric disturbance (BPRS). The outstanding feature on the Michigan Alcohol Screening Test (MAST) was that both offender groups and the Normal Contrast group reported clinical levels of alcoholism. Certainly, the high comorbidity of the paraphilias with alcoholism has been noted in the literature (Abel et al., 1989; Allnutt et al., 1996). Furthermore, the chemical agents in alcohol and drugs have been reported to reduce anxiety and guilt and therefore are thought to block cognitions that might inhibit paraphilic acts (Abel et al., 1989). Consequently, it is cautioned that unless steps are taken to disrupt the concomitant use of alcohol and drugs, the prognosis of the paraphilia is unfavorable (Abel et al., 1989). However, that the normal Contrast group also scored within clinical levels of alcoholism is surprising, suggesting either that this group is unusual in its high proportion of alcoholism, or that the MAST does not discriminate between general and forensic populations. According to previous research in our laboratory with rapists (Firestone, Bradford, McCoy, Greenberg, Curry, & Larose, 1998a), child molesters (Firestone et al., 1998b) and incest offenders (Firestone et al, 1999) respectively, the range of scores on the MAST indicated that alcohol was a serious problem for each offender group as a whole, with both Recidivist and Non-recidivists in each offender group scoring higher than seven, which is considered highly indicative of alcoholism (Selzer, 1975).

The three groups were comparable regarding general hostility as measured by the Buss-Durkee (BDHI), with neither group disclosing levels of undue hostility. Certainly, the absence of a group difference may be a result of the tool, which was not designed for forensic or sex offender populations. The absence of a difference between Exhibitionists relative to the Normal Contrast group does not reflect the identification by previous researchers of timidity

and perceived inferiority (Karpman, 1954) and unassertiveness (Karpman,1954; Marshall, 1989) or strong aggressive impulses (Cox,1980). This discrepancy may reflect the fact that the BDHI is specifically a test of general hostility, results of which cannot be generalized in an attempt to reflect these other personality characteristics. In previous research with other sex offender types, the BDHI indicated that both the child molester (Firestone et al., 1998 b) and incest offender (Firestone et al., 1999) groups as a whole scored below the cut-off for the clinical range of hostility (>38).

Neither offender group reported significant levels of psychiatric distress as measured by the Brief Psychiatric Rating Scale (BPRS). This result is supported by the literature which states that sexual offenders in general, rarely meet diagnostic criteria for major mental illnesses, but often show signs of low self-esteem, substance abuse problems, and assertiveness deficits (Marshall et al., 1991 a). Furthermore, this result is comparable with that of exhibitionist research that suggests that few exhibitionists have identifiable mental disorders (Mohr et al., 1964). Of the 54 exhibitionists in Mohr et al.'s (1964) study, none were psychotic, one had a 'psychoneurotic diagnosis', while 9 had disorders of behavior and character (DSM II).

No significant difference emerged between the Exhibitionists and Rapists with regard to sexual functioning as elicited by the Derogatis Sexual Functioning Inventory (DSFI). However, this tool was not designed for either forensic or sex offender groups. The outstanding feature on the DSFI however, was the poor sexual functioning of both the Exhibitionist and the Rapist groups (9th and 7th percentile respectively) compared to the norms (Derogatis & Melisaratos, 1979). Furthermore, the overall sexual functioning of both the

offender groups was significantly poorer than that of the Normal contrasts (34th percentile). In this instance, the normals scored within normal limits, providing credibility to the scale and its accuracy. Previous research has identified 'deficits in their heterosexual skills and a lower than average frequency of heterosexual activity' (Gebhard et al.,1965); 'heterosexual immaturity' (Karpman, 1954); 'below average sexual adjustment' (Blair & Lanyon, 1981); and a 'deficit in intimacy' (Marshall, 1989) amongst exhibitionists. Furthermore, poor sexual functioning amongst paraphilics in general (Abel et al., 1989) and problems with intimacy amongst all types of sexual offenders (Marshall, 1989) have been identified. In previous research with other sex offender types, the DSFI indicated that the overall level of sexual functioning of child molesters (Firestone et al., 1998 b) was at the 3rd percentile, and that of incest offenders (Firestone et al., 1999) ranged from the 2nd to 5th percentile of the population at large, revealing the marked inadequacy of both these offender groups. Abel et al., (1985) has noted that some paraphilics show a surprising lack of general sexual knowledge, and others have specific sexual dysfunctions when attempting non-deviant sexual activities with their partners.

While no difference emerged between the two offender groups with regard to cognitive distortions, the outstanding feature on the Cognition Scale was that both Exhibitionists and Rapists reported significantly more permissive ideas about adult sexual contact with children than the Normal Contrasts. The clinical significance of this finding has however, been called into question earlier, given the marginal group differences and the high ceiling effect of this measure. Previous research with child molesters, (Firestone et al., 1998b) indicated that child molester recidivists and non recidivists scored 4.3 and 4.4 respectively, on the Cognition Scale, both of which fell in the clinical range. While the high proportion of Exhibitionists who

victimized children may explain this finding amongst this offender group, the similarity between Rapists and Exhibitionists was unexpected, given that the Rapist group by definition victimized adults. Possibly, this finding reflects cognitive distortions and permissive sexual attitudes in general, rather than specific pedophilic tendencies. It may, however, reflect the Rapists' ideas about coercion and aggression in general, given the significant correlation between the Cognition Scale, the Rape Myth Acceptance Scales and the Coercive Sexuality Scales. This finding parallels the reports of other investigators who found no significant differences between rapists' and child molesters' beliefs about the sexual assault of women (Pithers, 1994; Segal & Stermac, 1984). One hypothesis for this finding is that child molesters may have more cognitive distortions about sexually offending behavior in general and thus may tend to justify numerous forms of sexual deviance rather than exclusively holding distorted beliefs about child molestation (Bumby, 1996).

In contrast to the self-report psychological inventories, the Psychopathy Checklist-Revised (PCL-R) was valuable in discriminating between offender groups. Exhibitionists scored significantly lower on this measure of psychopathy than did Rapists. Neither group however, met the PCL-R's criterion (+ 29) for psychopathy (Hare, 1991). This is not surprising and is consistent with previous research on rapists. Rice, Harris and Quinsey (1990) reported mean PCL-R scores of 21.53 and 15.73 for recidivists and non-recidivists respectively, in their population of rapists from a maximum security psychiatric hospital. In a population of rapists in an outpatient assessment setting, Firestone et al. (1998 a) reported mean totals of between 25.2 and 26.7 for recidivists and between 23.3 and 25.2 for Non-Recidivists. In previous research with other offender types, incest offender recidivists scored a mean PCL- R Total

score of 22 and non-recidivists between 16.4 and 17.9 (Firestone et al., 1999); and child molester recidivists scored a mean total score of between 19.8 and 22.1 and non-recidivists between 15.6 and 18.1 (Firestone et al.,1998 b). Further exploration of the two factors into which the PCL-R can be sub-divided indicated significant differences between the two groups, with Rapists demonstrating significantly more characteristics on both Factor 1 (Psychopathic Personality) and Factor 2 (Criminal Lifestyle) than Exhibitionists.

The phallometric measures Rape Index and Assault Index were unable to discriminate between the two offender groups. Although unexpected, this result is supported by Pawlak (1994), who noted that on phallometric assessment, Rapists were not sexually aroused by rape scenarios, suggesting that rape is more an expression of antisocial behavior than of sexuality. Unfortunately, there were no measures of arousal to Pedophilic and Pedophilic Assault material for the Rapist group and no comment can be made in this regard. Certainly, the Pedophile Index was successful in differentiating between Exhibitionists and the Normal Contrast group, demonstrating a greater degree of sexual arousal to Pedophilic scenarios. This finding is expected considering that one-third of Exhibitionists reported choosing child victims exclusively. The absence of a significant difference between Exhibitionists and the Normal Contrast group on the Pedophile Assault Index may suggest that while sexually attracted to children, this group of offenders in general are not sexually aroused by violent scenarios. Certainly, 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, Marshall Barbaree, Davidson, & Malcolm, 1984; Nagayama Hall, 1995). However, 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 respectively (Abel, et al., 1988). The present investigation adds support to this contention and expands its utility, for example, its ability to identify exhibitionists.

Comparison between Recidivist and Non-Recidivist Exhibitionists

Any discussion of sexual recidivism must be prefaced with a comment about the fact that recidivism rates for sex offenders are a gross under-representation of the real number of offences committed, no matter what criteria are used (Finkelhor & Araji, 1986; Furby, et al., 1989; Hanson & Bussiere, 1997; Quinsey et al., 1995 b). Results must therefore be interpreted with this constraint in mind.

It is important to recall that in the present investigation, recidivism was defined as any charge or conviction received after the index offence. The analysis of CPIC records indicates that the recidivism rates amongst this population of exhibitionists, over a fifteen year period, were 11.7, 17.6 and 34.4 percent for sexual, violent or any criminal offences, respectively. Considering legal manipulations such as plea bargaining (Furby et al., 1989), the broader categories may reflect recidivism rates more accurately than the more specific ones. Over half of the recidivists in each of the three categories had reoffended by the fifth year, as reflected in the respective rates 8, 12.1 and 25 percent. In their study employing unofficial records, Marshall et al. (1991a) found that 91% of recidivists had reoffended prior to four years from discharge.

The criminal recidivism rate of 34.4% yielded by this study is almost half of the 75% criminal recidivism rate (excluding exhibitionism) computed by Sugarman et al. (1994). This

discrepancy is particularly interesting considering that the samples in both Sugarman et al.'s study (1994) and the current investigation were from a Forensic Psychiatry Service as opposed to a prison. Possible reasons for this discrepancy include the longer follow-up period (8 to 25 years), the wider definition of contact sex offences (all sexual offence convictions other than indecent exposures and obscene telephone calls) and the different samples (almost all had been referred after an arrest for indecent exposure) in the Sugarman et al. (1994) study. Similarly, the 11.7% sexual recidivism rate yielded in this investigation is significantly lower than the 57.1% (n = 12) computed in Marshall et al's (1991a) study on exhibitionists. One possible reason for this discrepancy may be that outcome data in that study were derived from both official and unofficial police records, the latter of which revealed rates that were 2.3 times higher than the former. The researchers collapsed these two sets of data to produce estimates of recidivism. Furthermore, many of the participants in Marshall et al's (1991a) study were assessed after incarceration, during their probation or parole; whereas virtually none of the participants in the population of exhibitionists studied in this investigation were convicted or on parole. Another reason for the low recidivism rates yielded in this investigation may be the fact that only the first offence committed during the follow-up period was considered. This possibly excluded subsequent sexual offences, thereby under-estimating the actual recidivism rates.

The recidivism rates of the same group of rapists employed in the present study as a clinical control group were reported in an earlier study (Firestone et al., 1998a). Rates were computed as 16, 26 and 53 percent for sexual, violent and criminal offences respectively, emerging consistently higher than the corresponding rates of recidivism for exhibitionists. The

difficulties in comparing recidivism rates between offender groups are well documented (Furby et al., 1989).

The respective discriminant function analyses for both Sexual and Violent Recidivism yielded Previous Sexual Offences (CPIC) as the predictor which maximally discriminated between the respective Recidivist and Non-Recidivist groups. For Criminal Recidivism, the combination of variables that maximally discriminated between Recidivists and Non-Recidivists were Education Level and Previous Criminal Offences (CPIC). These results are supported by research findings indicating that sexual offence recidivism was best predicted by measures of sexual deviancy (of which prior sexual offences is an example) and to a lesser extent, by general criminological factors (of which total prior offences is an example) (Hanson & Bussiere, 1998). Quinsey et al. (1995) found that sexual recidivism was well predicted by previous criminal history, psychopathy ratings and phallometric assessment data. Furthermore, Hanson and Bussiere's (1998) meta-analysis showed that the predictors of general recidivism were similar to those predictors found among non-sexual criminals (e.g. prior violent offences, age and juvenile delinquency). Proulx et al. (1997) showed that reconvicted rapists were younger and had more previous convictions. Such links between previous criminal offences and recidivism, and between age and recidivism, have also been reported by Rice et al. (1990).

Previous research with other types of sex offenders, using the same set of variables employed in this investigation provide an interesting comparison. Age and the MAST were selected as the optimal predictors of recidivism for a rapist population (Firestone et al., 1998a); Previous Criminal Offences (CPIC), PCL-Total, Previous Sexual Offences (CPIC), and Age for an incest offender population (Firestone, et al., 1999); and Previous Criminal Offences (CPIC), Age, and Pedophile Assault Index for an extra-familial child molester

population (Firestone, et al.1998 b). Clearly, the static predictor Age is common to the findings of each of these studies, while Previous Criminal Offences (CPIC) is common to all except the rapist study.

Two variables appear to be particularly potent in this study, Previous Sexual Offences (CPIC) and the PCL-R. The single variable Previous Sexual Offences was able to correctly classify 99.5 and 100 percent of Non-recidivists, and 15.4 and 12.8 percent of the Recidivists in the Sexual and Violent recidivism categories, respectively. While the combination of the variables Previous Criminal Offences, Education and Age was able to correctly classify 89.4 % of the Non-Recidivists and 31.4 % of the Criminal Recidivists, the PCL-R emerged as a significant predictor of criminal recidivism amongst the Exhibitionists with similar predictive accuracy as this combination. The PCL-R also emerged as a potent predictor of recidivism in a previous study on child molesters (Firestone et al., 1998 b). Predictive ability however, should be viewed with some caution if considering prediction in other populations. There is considerable evidence that such statistical modeling is highly sensitive to the particular population under consideration. Furthermore, stepwise methods have been noted to be particularly vulnerable to random fluctuations (Pedhazur in Hanson & Bussiere, 1998).

Results of the present investigation revealed that Recidivists differed in some respects from Non-Recidivist Exhibitionists, in all three categories of recidivism. Certainly, the ability to discriminate between Sexual Recidivists and Non-Recidivists in this population of exhibitionists was relatively poor. In general, this has been the case within most previous sexual recidivism research (Firestone, et al.,1998 a; Proulx et al., 1997; Quinsey et al., 1995). Firestone et al. (1998 a) and Proulx et al. (1997) respectively found no differences between Sexual Recidivists and Non-Recidivists in a population of rapists and child molesters.

However, Violent and Criminal Recidivists generally emerged as a significantly more pathological group than Non-Recidivists, as evidenced on certain demographic and historical variables, psychological tests, phallometric measures, and prior offence histories.

In terms of demographics, compared to their Non-Recidivists counterparts, the Recidivists in all three categories were more likely to be single and less educated, with Criminal Recidivists also emerging as younger. This relationship between the demographic variables age (young) and marital status (single) and sexual offence recidivism has been replicated across many studies (Hanson & Bussiere, 1998).

With regard to admittance or denial of the index offence, no difference emerged between Recidivist and Non-Recidivists in any of the Recidivism categories. The outstanding feature on this variable was that the vast majority of both Recidivists and Non-Recidivists denied their offence. This was unexpected given the finding that the presence and degree of denial is considered a significant factor in treatibility and the likelihood of recidivism (Barbaree, 1991; Marshall & Barbaree, 1989).

In terms of historical variables, a higher rate of personal and family histories of drug abuse was reported amongst Criminal Recidivists only. A greater proportion of Recidivists than Non-Recidivists in all three categories reported substance use at the time of the index offence. The use of alcohol as justification for paraphilic behavior was discussed earlier (Abel et al., 1985). Interestingly, such rationalization appears more prevalent amongst Recidivists. A history of sexual abuse in childhood did not differentiate the Recidivist and Non-Recidivist groups. This is supported by the results of Hanson and Bussiere's (1998) meta-analysis in which, contrary to popular belief, sexual abuse as a child was not associated with increased risk of recidivism.

Psychometric tools have generally shown an inability to discriminate between recidivists and non-recidivists in sex offenders in general (Hanson & Bussiere, 1998). Nevertheless, despite the limitations inherent in self-reports discussed earlier (Freund et al., 1988), the self-reported psychological inventories used in the present investigation were able to discriminate between the groups in some respects.

Certainly, in the Sexual Recidivism category, no group differences were yielded with the exception of a higher level of psychiatric disturbance (BPRS) reported by Recidivists than Non-Recidivists. This finding however, must be viewed with caution, because the lack of convergent findings on this test from other categories in the present study or in other published research suggest that it may be spurious.

In the Violent Recidivism category, no differences were yielded with regard to psychological maladjustment (MAST; BDHI; and BPRS) or attitudes (Cognition Scale). However, poorer sexual functioning (DSFI) was reported by Recidivists compared with Non-Recidivists in this category. This finding is convergent with the finding of poorer sexual functioning evident amongst Criminal Recidivists. The outstanding feature on this measure was that both Recidivists and Non-Recidivists reported poor sexual functioning. The sexual problems identified amongst exhibitionists in general were discussed earlier. Also, significantly more psychopathic traits (PCL-R) were evident amongst Violent Recidivists compared with Non-Recidivists, a result which is supported by the convergent finding amongst Criminal Recidivists in the present study and in considerable previous research with other types of sex offenders (Firestone et al., 1998a; Rice et al., 1990; Serin et al., 1994).

In the Criminal Recidivism category, in terms of psychological maladjustment, Recidivists scored higher on both alcoholism (MAST) and general hostility (BDHI), with no differences in

levels of psychiatric disturbance (BPRS). Despite the significant difference between groups, the outstanding feature of the MAST was that both Recidivists and Non-Recidivists met the criterion for alcoholism. The Recidivists' higher level of general hostility (BDHI) is supported by other findings including the greater proportion of histories of violent offences. However, despite this significant difference between groups, neither group met the criterion for clinical levels of general hostility. No differences were evident on the measure of degree of psychiatric disturbance (BPRS). With regard to psychological maladjustment, these findings are supported by a meta-analysis of sex offender recidivism studies, which found that neither general psychological problems nor alcohol abuse were related to sexual offence recidivism (Hanson & Bussiere, 1998). In previous research in our laboratory, with other types of sex offenders, the MAST was able to discriminate between child molesters who sexually recidivated and those who did not (13.2 versus 7% respectively) (Firestone et al., 1998b); between rapists who criminally recidivated and those who did not (21.9 versus 9.1% respectively), and between rapists who violently recidivated and those who did not (30.3 vs 10.9%) (Firestone et al., 1998a); and between incest offenders who criminally recidivated and those who did not (17.2 and 8.2) (Firestone et al., 1999).

The Cognition Scale was successful in discriminating between Criminal Recidivists and Non-Recidivists, with the former reporting significantly more permissiveness regarding adult sexual contact with children. The clinical significance of this finding was called into question earlier, given the marginal group differences and the high ceiling effect of this measure. There is a possibility however, that this result may reflect a higher proportion of men with pedophilic interests amongst Recidivists. However, this result is supported by Abel et al.'s (1989) finding that the presence of faulty cognitions appears to be closely linked with the persistence of the

paraphilic's deviant arousal, and that these beliefs are especially common in offenders whose likelihood of re-offence is high. Paraphilics early in their career have a few idiosyncratic belief systems that rationalize their deviant sexual behavior, whereas the chronic sex offender usually has a plethora of such faulty beliefs to help him justify continuing his deviant behavior (Abel et al., 1989).

The Psychopathy Checklist-Revised (PCL-R) was particularly valuable in discriminating between Recidivists and Non-Recidivists in the Violent and Criminal categories, but was unable to yield significant differences in the Sexual Recidivist group. These findings seem to support the body of clinical and research information which suggests that psychopaths are at a higher risk to reoffend than non-psychopaths, that they recidivate sooner, and that the offence is more likely to be violent (Harris et al., 1993; Hart et al. cited in Hare, et al., 1992; Serin et al., 1994). Although both Violent and Criminal Recidivists demonstrated more psychopathic characteristics in total than the Non-Recidivists, the mean total score for the Recidivist and Non-Recidivist groups within all three categories of recidivism was below the criterion for psychopathy (cut-off score greater than or equal to > 29) as suggested by Hare (1991). This finding however, corresponds with that of previous research (Quinsey et al., 1995; Rice et al., 1991; Serin et al., 1994). Interestingly, when compared with Non-Recidivists, a significant difference between both Violent and Criminal Recidivists, respectively, was evident on both Factor 1 (Psychopathic Personality) and Factor 2 (Criminal Lifestyle) of the PCL-R. Hanson and Bussiere's (1998) meta-analysis yielded criminal lifestyle variables to be reliable, although modest predictors of sexual offence recidivism, the largest of all these predictors being antisocial personality disorder ($r = .14$). It is unclear why this is not evident amongst sexual recidivists in this study. Given the group differences yielded in this analysis, it is however,

interesting to consider whether the Non-Recidivist Exhibitionists and the Criminal and Violent Recidivist groups correspond respectively with 'type I', the inhibited, flaccid exposer and 'type II', the sociopathic, erect exposer of the Rooth typology (Rooth, 1971).

The phallometric measures were generally not valuable in discriminating between the Recidivist and Non-Recidivist groups. They were unable to yield any significant differences within both the Sexual and Violent Recidivism categories. When compared with Non-Recidivists, Criminal Recidivists did, however, evidence a significantly higher mean response on the Pedophile Index only. Sexual interest in children as measured by phallometric assessment was yielded as the single strongest predictor in a meta- analysis of sexual recidivism ($r = .32$), while sexual interest in rape was not related to recidivism (Hanson & Bussiere, 1998). The outstanding finding on the Pedophile Index however, is that both Recidivists and Non-Recidivists within all three categories of Recidivism met the criterion (over 1.0) for sexual deviance. While this result indicates a high proportion of men with pedophilic tendencies amongst the Exhibitionists, it may however, reflect the general paraphilic nature of this population of offenders. The fact that this index discriminates between the Rapist and Exhibitionist groups, and between the Hands-on and Hands-off Sexual Recidivists in this investigation adds weight to this finding.

Offence histories were particularly valuable in differentiating between the Recidivist and Non-Recidivist groups. Sexual Recidivists had significantly more offences than the Non-Recidivists in the Sexual and Criminal offence categories only; Violent and Criminal Recidivists respectively, had records of significantly more offences than the Non-Recidivists in each of the three offence categories, sexual, violent and criminal. As many as half the Recidivists had records of prior criminal offences. This finding is consistent with previous

research. Hanson and Bussiere's (1998) meta-analysis yielded criminal lifestyle variables to be reliable, although modest predictors of sexual offence recidivism, the largest of which were antisocial personality disorder and the total number of prior offences. Furthermore, Rooth's hypothesized type II, the sociopathic erect exposer, is noted as presumably more likely to commit serious offences (Rooth, 1971), adding weight to the suggestion that this proposed type corresponds with the Recidivist group amongst this population of Exhibitionists.

A Comparison of Hands-On and Hands-Off Sexual Recidivists

Further delineation of the Recidivist sample indicated that of the total population of Exhibitionists, 8.1% and 3.6% committed hands-off and hands-on sexual offences respectively as their first offence after the index offence. However, when the definition of Sexual Recidivism was widened to include a sexual offence committed at any time during the follow-up period, the rates increased to 12.2% (n=27) and 6.3% (n=14) for Hands-Off and Hands-On sexual offences respectively. The sexual recidivism rate of 6.3 % for Hands-On sexual offences is remarkably similar to the 7% computed by Bluglass (1980). However, it is less than the 26% of 210 cases computed by Sugarman, et al., (1994) in the follow-up study. Possible reasons for the discrepancy in findings include methodological differences in the designs of the two studies including the longer follow-up period (8 to 25 years); the wider definition of hands-on or 'contact sex offences' (all sexual offence convictions other than indecent exposures and obscene telephone calls); and the different sample (almost all had been referred after an arrest for indecent exposure) in Sugarman et al.'s (1994) study.

Results of the present investigation revealed that in general, Hands-On Sexual Recidivists did not differ appreciably from their Hands-Off counterparts. The two groups were comparable on all demographic factors, self-reported historical information, and self-reported

psychological inventories. The small sample size may explain the lack of significant differences. With regard to demographic and historical variables, a comparison between these findings and those of Sugarman et al. (1994) yielded varied results. In both studies, marital status, a history of alcohol or substance abuse or intoxication at the time of exposure, and psychosexual difficulties were not associated with charges or convictions for contact sexual offences. However, in contrast to the present study's findings, Sugarman et al. (1994) found that a personal history of sexual abuse, a family history of criminality and a family history of substance abuse were associated with more contact sexual offences, and a family history of mental illness was associated with fewer. One possible reason for these discrepancies may be that the current study compares the two sub-types of sexual recidivists, while Sugarman et al. (1994) compared hands-on sexual recidivists with recidivists in general.

Despite the lack of difference in demographic, historical and psychometric data in the current investigation, notable group differences were evident with respect to psychopathy traits, phallometric measures and offence histories.

In contrast to the self-report psychological inventories, the Psychopathy Checklist-Revised (PCL-R), was useful in discriminating between the two sub-groups of Sexual Recidivists. Hands-On Sexual Recidivists demonstrated significantly higher total scores than their Hands-Off counterparts, indicating more psychopathic traits in general. This is supported by earlier research findings that antisocial behavior starting in childhood, and a diagnosis of personality disorder in adulthood (Bluglass, 1980); and a history of childhood conduct disorder, and a diagnosis of personality disorder (Sugarman's, 1994) emerged as a marker of dangerousness in exhibitionists. The mean total PCL-R score for the Hands-Off group was 16.02 (S.D.= 9.14). A PCL-R cutoff score of 16 or less has been suggested by Hare (1991) to rate

non-psychopaths and has been reported in the literature (Serin et al., 1994). This suggests that as a group, the Hands-Off Recidivists are not psychopaths. The outstanding feature of the PCL-R was the significant group difference which emerged on Factor 1 (Psychopathic Personality), but not on Factor 2 (Criminal Lifestyle), suggesting that personality traits (such as glibness or superficial charm) rather than criminal lifestyle (such as number of previous offences) contributed to the group difference in this population. These findings seem to support the body of clinical and research information which suggests that psychopaths are at a higher risk to reoffend with a violent offence than non-psychopaths (Harris et al., 1991; Hart et al., cited in Hare, et al., 1992; Serin et al., 1995).

Phallometric measures were particularly valuable in differentiating between the two groups of Sexual Recidivists, with the Hands-On group demonstrating significantly higher scores on both the Pedophile and Rape Indices than the Hands-Off group. No differences emerged however, on either the Pedophile Assault or the Assault Indices. Interestingly, sexual interest in children as measured by phallometric assessment was the single strongest predictor in a meta- analysis of sexual recidivism studies $\hat{R}$ = .32), while sexual interest in rape was not related to recidivism (Hanson & Bussiere, 1998). Marshall et al.'s (1991b) study on the sexual preferences for exposing replicates an earlier observation of Freund & Blanchard (1986) that, compared with normal controls, exhibitionists do not demonstrate a profound degree of deviant arousal to 'exhibiting' scenarios. Marshall et al. (1991b) concluded that erectile measures of sexual preferences for exhibitionists are of little use in determining treatment needs and evaluating risk to reoffend. The current study suggests, that phallometric assessment of exhibitionists' arousal to scenarios other than exhibiting (e.g. rape and children in particular), may be useful in evaluating the risk of reoffending with a hands-on sexual

offence. No comment can be made as to the potential use of targeting deviant sexual arousal in treatment, as this dynamic predictor was not investigated.

Offence histories were valuable in differentiating between the two groups, with Hands-On Sexual Recidivists demonstrating significantly more prior violent and criminal offences than the Hands-Off group, and a trend evident for prior sexual offences. This finding is partially supported by the Sugarman et al. (1994) finding that convictions for 'acquisitive offences' were strongly associated with contact sexual offences.

The variable Rape Index was selected to best discriminate between the two groups, and was able to correctly classify 78.9% of the original group. The caution required in generalizing these results to other populations has been noted earlier. This finding is supported by Hanson and Bussiere's (1998) finding that the strongest predictors of sexual recidivism were factors related to sexual deviance, such as deviant sexual interests.

In the Sugarman et al. (1994) study, the seven variables selected to best discriminate between those cases with and without subsequent hands-on sexual offences included below average intelligence, having a conviction for criminal damage, being a skilled worker, exposure at only one site, displaying an erection or masturbating during the exposure, cornering or pursuing the victim, and having a history of homosexuality or bisexuality. Possibly the variables intelligence, skilled worker; conviction for criminal damage correlate with the two predictor variables, Education Level and Total Number of Prior Criminal Offences, yielded in this study as the best predictors for Criminal Recidivism. The discrepancies in findings between the current study and that of Sugarman et al. (1994) can be attributed to the methodological differences outlined above, the variations in samples, the small sample size of the current study, the different variables examined, and the random fluctuations to which

'stepwise methods' are particularly vulnerable (Pedhazur in Hanson & Bussiere, 1998). The general difficulties of comparing results of different recidivism studies have been well outlined (Furby et al., Hanson & Bussiere, 1998). The dearth of recidivism studies in the area of Exhibitionism specifically, renders comparisons even more difficult.

Practical Implications

The results of this study have important implications for the assessment and treatment of sexual offenders.

Findings amongst this population of exhibitionists of comorbidity with the different types of paraphilias, alcohol, drugs and criminality, and particularly evidence of subsequent acts of sexual assault, lend support to the argument that the existing psychiatric classification of the paraphilias as singular activity does not address the complicated nature of the underlying behavior patterns (Abel et al., 1985). Paraphilias are not most usefully conceptualized as a single behavior, and could be more accurately studied using a multi-dimensional approach. Findings lend support to the argument that Exhibitionism should not be regarded as an homogeneous group (Rooth, 1973).

Furthermore, evidence of subsequent sexual assault amongst a pure group of exhibitionists, with no prior offence records of sexual assault, lends support to a 'stepping stone' escalation phenomenon, viz. that sex offenders progressively commit more aggressive acts as they continue to recidivate. There is some evidence in previous research and current work in progress to support this idea (Abel, 1999, personal communication; Macdonald, 1971; Marshall & Barbaree, 1989; Walker & McCabe, 1973).

Those predictors which successfully discriminated between Recidivist and Non-Recidivist Exhibitionists, and between Hands-On and Hands-Off Sexual Recidivists may be used in

treatment decisions (e.g. in the case of an Exhibitionist presenting with a high Rape or Pedophile Index on phallometric assessment, the attending therapist would focus treatment on diminishing paraphilic arousal). The discriminating predictors may also be useful in assisting the courts in determining the most suitable disposition for exhibitionist offenders, and in assisting probation officers in determining the appropriate levels of supervision needed (Andrews & Bonta, 1994).

The finding that the mean age of Exhibitionists at the time of the assessment, (i.e in their mid-thirties,) was significantly later than the recognized onset of exhibitionism suggests that this group of sex offenders have the potential to act out for several years before apprehension, resulting in large numbers of the public being victimized. Consequently, in developing strategies to prevent exhibitionist acts and to curb recidivism, professionals should be targeting a significantly younger group than those who generally appear in the court system. This supports Abel et al.'s (1995) contention that the age of the patient at the time of the psychiatric evaluation influences the prognosis in that recurrence of the paraphilic acts is highest during adolescence when social controls are yet developing and the impact of biological drives is being felt by the individual (ages 15-25).

Limitations

The present investigation was limited to initial assessment data and consequently, only static features were considered in relation to recidivism. Recently, there has been interest in the role of dynamic features such as treatment response in recidivism (Proulx et al., 1997; Quinsey et al., 1995). Unfortunately, the evaluation of the influence of treatment or incarceration on recidivism rates was beyond the scope of the present study. Other dynamic variables that may be pertinent include insight, intimacy, social skills, victim empathy, attitudes

tolerant of sexual crimes, increases in deviant sexual urges, coping skills, and motivation to change.

Furthermore, the participants investigated in this study differed with regard to the amount of treatment, length of incarceration and probation received during the follow-up period. Unfortunately, data regarding the proportion of participants who were either treated or untreated was unavailable. Caution must be taken in generalizing about the risk of recidivism amongst exhibitionists from this study's findings because the dynamic variables, treatment and court disposition, were not taken into consideration when examining the recidivism rates.

Future directions

Interestingly, when all offences committed subsequent to the index offence were considered, as opposed to only the first offence (as was the case in the present study), sexual recidivism rates rose from 11.7 to 18.1 percent; and violent recidivism rates from 17.6 to 24.5 percent. This suggests that by focusing exclusively on the first offence committed after the index offence, this investigation and others like it are yielding conservative estimates of the rates of recidivism in general. It is suggested that future recidivism studies should investigate all subsequent offences, thereby examining the offender's potential 'chronic life risk'. This will have the advantage of reflecting more accurate rates of recidivism, and may assist in establishing those variables that are the best predictors.

Conclusions

In general, this investigation supports the greater body of literature suggesting that sexual recidivism is most closely associated with sexual deviancy, as measured by factors such as prior sexual offences. In contrast the best predictors of general recidivism are the same factors that predict general criminality among nonsexual criminals, (e.g. psychopathy) (Hanson &

Bussiere, 1998). Specifically, however, the exploratory part of this investigation has show n that phallometric measures, particularly the Pedophile and Rape Indices, are effective in discriminating between those exhibitionists who subsequently recidivate by exhibiting and those who go on to sexually assault their victims. Finally, the Psychopathy Checklist-Revis ed emerged as the most valuable psychometric tool in the study, in its ability both maximally to predict Criminal Recidivism amongst Exhibitionists and to discriminate between Hands-On and Hands-Off Recidivists.

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Appendices

Appendix A

ROYAL OTTAWA HOSPITAL
FORENSIC PROGRAM - SEXUAL BEHAVIOURS CLINIC
CONSENT FORM

I ______________________________________, hereby consent to my attending physician Dr. ______________________________ To carry out such examinations, tests and treatment as may be required in the opinion of my physician in the assessment and treatment of my conditions. Specifically, I consent to:

_____ Abel Assessment For Paraphilia
I consent to the evaluation of my sexual interest using the Abel Assessment as part of the assessment of my sexual disorders/dysfunction . I understand that I will be asked to complete a questionnaire regarding my sexual attitudes and experiences and that I will be asked to view and rate my sexual attraction to a series of slides of males and females of various ages.

_____ Penile Tumescence
I consent to the assessment of penile tumescence as part of the assessment of sexual disorder/dysfunction. I understand that I will be undergoing this special test(s) to assess and monitor my present condition. The procedure has been fully explained to me and I understand that explanation.

_____ Sexual Behaviours Questionnaires
Many of the questions in the package concern issues which are highly personal. Therefore, whether you answer them or not is your choice. However, if you do respond to them, it is important that your answers be as honest and accurate as possible. I consent to answer the questionnaires.

_____ I also consent to the use of this information for research purposes provided that my name is kept confidential.

I understand that I am free to withdraw at any time from any or all of the above assessment at any time without prejudice to my evaluation or to myself.

______________________________ ______________
Signature Of Patient Date

______________________________ ______________
Signature Of Witness Date

APPENDIX A

CONSENT FORM FOR THE PENILE TUMESCENCE PROGRAMME

I, ________________________________ of ____________________ hereby consent to the assessment of penile tumescence as part of the assessment of sexual disorders/dysfunction under the care of Dr(s) ____________________________________.

I understand that I will be undergoing this special test(s) to assess and monitor my present condition. The procedure has been fully explained to me and I understand that explanation.
I also understand that I am free to withdraw from this programme at any time.

Signature: ______________________

Witness: ____________________________

I hereby confirm that I have explained this assessment programme to: ____.

Signature: ______________________

Date: _________________________

APPENDIX A

PLEASE READ CAREFULLY

I understand that if I disclose information concerning the abuse of a child, including sexual abuse, if this has not been reported to the Children's Aid Society, the investigators are obliged to do so.

Many of the questions in this package concern issues which are highly personal. Therefore, whether you answer them or not is your choice. However, if you choose to respond to them, it is important that your answers be as honest and as accurate as possible.

CONSENT

I ______________________________, hereby consent to answer the attached questionnaires. I consent to the use of this information for the research project described to me, provided that my name is kept confidential.

Date______________ Signature____________________________

Date______________ Witness ____________________________

Appendix B

BRADFORD FORENSIC ASSESSMENT FORM (1992)

1. Chart# ________ 2. Name ________________

3. Date ________ 4. Age ______ 5. Sex ________

6. Marital Status
 ____ Single - no steady girl/boy friend
 ____ Single - steady girl/boy friend
 ____ Married
 ____ Common-law
 ____ Divorced*
 ____ Separated*
 ____ Widowed*

 *Due to alleged offence __Yes __ No

7. Education ____ ________ (total # of yrs)

7b. Occupation (highest attained) ________________

7c. Country of birth ____________ Religion ________________

8. Referring Agent ____________

9. Past Convictions ____________ (approx. #)

10. Alleged Offence(s) When (Admit/Deny/Amnesia) (charged/convicted)

a. ______________ ____ (____/____/____) (______/______)

b. ______________ ____ (____/____/____) (______/______)

c. ______________ ____ (____/____/____) (______/______)

11. DSM III Diagnosis (#)

a. ______________

b. ______________

c. ______________

12. Paraphilia(s) (Admit/Deny)

a. ____________ (____/____)

b. ____________ (____/____)

c. ____________ (____/____)

Patient History:

		Yes	No	Still present
13.	History of alcohol dependency	___	___	Y N
14.	History of drug abuse	___	___	Y N
15.	History of suicidal behaviour	___	___	Y N
16.	Previous psych. contact	___	___	
17.	Previous forensic contact	___	___	
18.	Previous inpt. forensic contact	___	___	
19.	Previous history of violence	___	___	
.	Currently employed	___	___	

27 Admission status:

____ a: Voluntary
____ b. Form 1
____ c. Warrant of remand/Assessment Order
____ d. L.G.W. / N.C.R.
____ e. Other involuntary status

27b. Position in Criminal Process

____ a. Pre-trial
____ b. Pre-sentence
____ c. Pre-release from incarceration
____ d. Probation
____ e. Other ______________________________ ________________
____ f. Nil

28. Only for sexual offenses against children

Degree of pedophilia

____ 1. Patient has had sexual contact with a physically mature person and committed the offense against a child as an incidental part of a pattern of anti-social conduct.

____ 2. Patient is a situational offender who is primarily attracted to adults.

__ 3. Patient has a preference for sexual contact with physically immature individuals and has (had) established patterns of sexual conduct with children.

29. For incest cases

Is this an FCC custody dispute case? Yes ____ No ____

Bradford Sexual History Inventory

(Bradford, Pawlak, Boulet, Curry)

SECTION A

1. When you were 12 and younger did you ever have sexual contact with anyone 16 or older?

yes ____ no ____

if you answered no then skip to section B

2. When you were 12 and younger how many times did you have sexual contact with someone 16 or older?

once ___ 2 - 5 ___ 6 - 10 ___

11 - 50 ___ 51 - 100 ___ over 100 ___

3. What was the nature of the contact?
(you may check off more than one)

touching ____

oral sex ____

intercourse ____

anal intercourse ____

other (specify) ______________________________

3b. How did the adult(s) get you to have the sexual contact with him or her?

bribery or verbal persuasion
(eg. candy, money, friendship) ____

threats (to tell others) ____

threats (to physically hurt you or others) ____

physically forced the sexual contact ____

severely physically hurt you ____

nothing - you were willing ____

3b. How did the adult(s) get you to have the sexual contact with him or her?

bribery or verbal persuasion (eg. candy, money, friendship)	____
threats (to tell others)	____
threats (to physically hurt you or others)	____
physically forced the sexual contact	____
severely physically hurt you	____
nothing - you were willing	____

4. What was the relationship between you and the adult(s) who had sexual contact with you, when you were between 13 and 16? Please write how many adults for each type of relationship.

	male	female
stranger	____	____
acquaintance	____	____
brother/sister/cousin	____	____
relative (aunt, uncle, etc)	____	____
parent (mother, father)	____	____
step-parent	____	____

5a. How old were you when the first sexual contact (referred to in Section B, question 2) occurred?

_____ years

5b. How old were you when the sexual contact stopped?

_____ years

SECTION C

6. Do you have a regular female sexual partner now?

no ____ yes ____

7. Since you were 16 years old, approximately how many different women (16 or older) have you had sexual intercourse with?

_____

8. How old were you when you first had sexual intercourse with a female?

_____years

15. In total, how many times have you had sexual contact (touching, intercourse etc.) with girls 12 years old or younger?

once ___ 2 - 5 ___ 6 - 10 ___ 11 - 50 ___

51 - 100 ___ 101 - 200 ___ over 200 ___

16. What types of sexual contact did you engage in ?
(you may check off more than one)

touching ____

performing oral sex ____

having oral sex performed on you ____

intercourse ____

anal intercourse ____

other (specify) ______________________________

16b. How did you get the girl(s) to have sexual contact with you?

bribery or verbal persuasion
(eg. candy, money, friendship) ____

threats (to tell others) ____

threats (to physically hurt her or others) ____

physically forced the sexual contact ____

severely physically hurt her ____

nothing - she was willing ____

17. What was the girls's (or girls) relationship to you? Write how many girls for each type of relationship.

stranger ____

acquaintance ____

sister, cousin ____

relative (granddaughter, niece) ____

step-daughter ____

daughter ____

21. **What was the boys's (or boys) relationship to you? Write how many boys for each type of relationship.**

stranger ____

acquaintance ____

brother, cousin ____

relative (grandson, nephew) ____

step-son ____

son ____

SECTION G (These questions apply to when you were 20 and older)

If you have never had sexual contact with a girl 13 to 15 years old, skip section G and continue with section H.

22. Since you were 20 years old, how many different girls, 13 to 15 years old, have you touched in a sexual way?

one ___ 2 - 5 ___ 6 - 10 ___ 11 - 20 ___

21 - 50 ___ 51 - 100 ___ over 100 ___

23. In total, how many times have you had sexual contact (touching, intercourse etc.) with girls 13 to 15 years old?

once ___ 2 - 5 ___ 6 - 10 ___ 11 - 50 ___

51 - 100 ___ 101 - 200 ___ over 200 ___

24. What types of sexual contact did you engage in ?
(you may check off more than one)

touching ____

performing oral sex ____

having oral sex performed on you ____

intercourse ____

anal intercourse ____

other (specify) ______________________________

28. What types of sexual contact did you engage in ?
(you may check off more than one)

touching ____

performing oral sex ____

having oral sex performed on you ____

anal intercourse ____

other (specify) ______________________________

28b. How did you get the boy(s) to have sexual contact with you?

bribery or verbal persuasion
(eg. candy, money, friendship) ____

threats (to tell others) ____

threats (to physically hurt him or others) ____

physically forced the sexual contact ____

severely physically hurt him ____

nothing - he was willing ____

29. What was the boys's (or boys) relationship to you? Write how many boys for each type of relationship.

stranger ____

acquaintance ____

brother, cousin ____

relative (grandson, nephew) ____

step-son ____

son ____

36. How many times have you intentionally exposed yourself to a stranger in a public place?

none ___ once ___ 2 - 5 ___ 6 - 10 ___

11 - 50 ___ 51 - 100 ___ over 100 ___

37. How many times have you felt sexually aroused by someone hurting or threatening you?

none ___ once ___ 2 - 5 ___ 6 - 10 ___

11 - 50 ___ 51 - 100 ___ over 100 ___

38. How many times have you felt sexually aroused by inflicting pain or humiliating someone?

none ___ once ___ 2 - 5 ___ 6 - 10 ___

11 - 50 ___ 51 - 100 ___ over 100 ___

39. How many times have you secretly attempted to watch people having sexual relations?

none ___ once ___ 2 - 5 ___ 6 - 10 ___

11 - 50 ___ 51 - 100 ___ over 100 ___

40. How many times have you physically tried to force a woman to have sexual relations with you?

none ___ once ___ 2 - 5 ___ 6 - 10 ___

11 - 50 ___ 51 - 100 ___ over 100 ___

40b. How many times have you physically tried to force a man to have sexual relations with you?

none ___ once ___ 2 - 5 ___ 6 - 10 ___

11 - 50 ___ 51 - 100 ___ over 100 ___

41. How many times have you intentionally touched a stranger in a crowd for sexual pleasure?

none ___ once ___ 2 - 5 ___ 6 - 10 ___

11 - 50 ___ 51 - 100 ___ over 100 ___

42. How many times have you physically forced a woman to have sexual relations with you?

none ___ once ___ 2 - 5 ___ 6 - 10 ___

11 - 50 ___ 51 - 100 ___ over 100 ___

53. In general, how does drinking alcohol affect your sexual desire?

increase ____ decrease ___ no effect ___ unknown ___

54. How does drinking alcohol affect your sexual pleasure?

increase ____ decrease ___ no effect ___ unknown ___

55. In general, how does smoking marijuana (grass, hash, etc) affect your sexual desire?

increase ____ decrease ___ no effect ___ unknown ___

56. How does smoking marijuana (grass, hash, etc) affect your sexual pleasure?

increase ____ decrease ___ no effect ___ unknown ___

57. Approximately how many sexually explicit (pornographic or "dirty") films have you seen?

none ___ once ___ 2 - 5 ___ 6 - 10 ___

11 - 50 ___ 51 - 100 ___ 101 - 200 ___ over 200 ___

58. These films contained scenes of;
(you may check more than one)

heterosexual intercourse (male-female sexual acts) _____

homosexual intercourse (male-male sexual acts) _____

lesbian sex (female-female sexual acts) _____

children engaging in sexual acts _____

violence (whipping, beating, bondage) _____

sexual activity between people and animals _____

59. Do you usually find pornographic films sexually exciting? (check only one)

yes ____ no ____ unknown ____

60. Do pornographic films usually increase your sexual desire? (check only one)

yes ____ no ____ unknown ____

61. Approximately how many sexually explicit (pornographic or "dirty") magazines or books have you looked at?

none ___ once ___ 2 - 5 ___ 6 - 10 ___

11 - 50 ___ 51 - 100 ___ 101 - 200 ___ over 200 ___

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Appendices D-K

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Appendix L: CPIC Record Sample

*ROYAL CANADIAN MOUNTED POLICE - IDENTIFICATION SERVICES

1866

*RESTRICTED - INFORMATION SUPPORTED BY FINGERPRINTS SUBMITTED BY LAW
*ENFORCEMENT AGENCIES - DISTRIBUTION TO AUTHORIZED AGENCIES ONLY.

FPS:

*CRIMINAL CONVICTIONS CONDITIONAL AND ABSOLUTE DISCHARGES
*AND RELATED INFORMATION

DON 10/11/94

1995-01-30 BELLEVILLE ONT	(1) SEXUAL ASSAULT (2) [illegible] (3) [illegible] 2X15	(1) 4 MOS (2) 2 MOS CONSEC (3) 1 MO ON EACH CHG CONC BUT CONSEC
	(CC GUELPH 665128644)	
95-06-01		
1996-10-21 BELLEVILLE ONT	(1) INDECENT ACT SEC 173(1) CC	(1-2) 30 DAYS ON EACH CHG CONSEC
	(2) FAIL TO COMPLY WITH PROBATION ORDER SEC 740 CC	
	(3) SEXUAL INTERFERENCE SEC 151 CC	(3) 120 DAYS CONSEC & PROBATION 3 YRS - PROHIBITION REGARDING CHILDREN UNDER AGE 14 FOR 5 YRS
	(4) INVITATION TO SEXUAL TOUCHING SEC 152 CC	(4) 30 DAYS CONSEC
	(5) FAIL TO COMPLY WITH PROBATION ORDER SEC 733.1(1) CC	(5) 30 DAYS CONC
	(QUINTE MADOC OPP 425-96	

1866

*END OF CONVICTIONS AND DISCHARGES

*SUMMARY OF POLICE INFORMATION - NOT INTENDED FOR SENTENCING PURPOSES

1996-10-21
EXPOSURE TO PERSON
UNDER AGE OF FOURTEEN
YEARS SEC 173(2) CC
(2 CHGS)
-WITHDRAWN
(QUINTE MADOC OPP
425-96)

*END OF POLICE INFORMATION
980607/01:27:05

Appendix L: CPIC Record Sample

1866

*ROYAL CANADIAN MOUNTED POLICE - IDENTIFICATION SERVICES

*RESTRICTED - INFORMATION SUPPORTED BY FINGERPRINTS SUBMITTED BY LAW
*ENFORCEMENT AGENCIES - DISTRIBUTION TO AUTHORIZED AGENCIES ONLY.

FPS:

*CRIMINAL CONVICTIONS CONDITIONAL AND ABSOLUTE DISCHARGES
*AND RELATED INFORMATION

DOD 10/11/94

1995-01-30 BELLEVILLE ONT	(1) SEXUAL ASSAULT [redacted] (2) [redacted] (3) [redacted] 2x15 (CC GUELPH 665128644)	(1) 4 MOS (2) 2 MOS CONSEC (3) 1 MO ON EACH CHG CONC BUT CONSEC
95-06-01 1996-10-21 BELLEVILLE ONT	(1) INDECENT ACT SEC 173(1) CC (2) FAIL TO COMPLY WITH PROBATION ORDER SEC 740 CC	(1-2) 30 DAYS ON EACH CHG CONSEC
	(3) SEXUAL INTERFERENCE SEC 151 CC	(3) 120 DAYS CONSEC & PROBATION 3 YRS - PROHIBITION REGARDING CHILDREN UNDER AGE 14 FOR 5 YRS
	(4) INVITATION TO SEXUAL TOUCHING SEC 152 CC	(4) 30 DAYS CONSEC
	(5) FAIL TO COMPLY WITH PROBATION ORDER SEC 733.1(1) CC (QUINTE MADOC OPP 425-96	(5) 30 DAYS CONC

1866

*END OF CONVICTIONS AND DISCHARGES

*SUMMARY OF POLICE INFORMATION - NOT INTENDED FOR SENTENCING PURPOSES

1996-10-21
EXPOSURE TO PERSON
UNDER AGE OF FOURTEEN
YEARS SEC 173(2) CC
(2 CHGS)
-WITHDRAWN
(QUINTE MADOC OPP
425-96)

*END OF POLICE INFORMATION
980607/01:27:05

Appendix I

Log Transformations

Variable	Group	n	M	S.D.	F (DF)	p	posthoc
Log Age	Exhibit	221	1.48	.13	2.414 (2,403)	.091	
	Rapist	85	1.45	.11			
	Normal	100	1.45	.12			
Log MAST	Exhibit	129	.61	.60	4.338 (2,269)	.014	Ex<R
	Rapist	43	.88	.56			
	Normal	100	.75	.48			
Log Cog	Exhibit	155	.7389	4.232E-02	7.682 (2,305)	.001	N>Ex
	Rapist	53	.7386	3.847E-02			N>R
	Normal	100	.7564	2.472E-02			
Log RMAS	Exhibit	93	1.7814	9.666E-02	5.680 (2,209)	.004	N>Ex
	Rapist	20	1.7564	.1226			N>R
	Normal	99	1.8161	7.317E-02			
Log CSS1	Exhibit	93	1.1266	8.516E-02	.232 (2,210)	.793	
	Rapist	20	1.1349	8.980E-02			
	Normal	100	1.1230	5.590E-02			
Log CSS2	Exhibit	93	.9964	5.424E-02	1.885(2,210)	.154	
	Rapist	20	1.0177	8.906E-02			
	Normal	100	1.0079	4.131E-02			

Appendix II

Sexual Attitudes Scale Scores of Exhibitionists (E), Rapists (R)and Normal Controls (C)

Variable	Group	n	M	SD	F (DF)	p<	posthoc
RMAS#	Exhibit	93	60.8	11.82	5.975 (2,209)	0	N>Ex
	Rapist	20	58.00	13.92			N>R
	Normal	99	65.29	9.42			
AIV	Exhibit	93	34.82	5.73	2.221 (2,210)	.111	
	Rapist	20	32.15	6.06			
	Normal	100	35.07	5.63			
ASB	Exhibit	94	46.32	10.14	.167 (2,211)	.847	
	Rapist	20	45.65	8.71			
	Normal	100	45.50	10.20			
CSS1#	Exhibit	93	12.68	3.25	.495 (2,210)	.610	
	Rapist	20	12.95	3.32			
	Normal	100	12.39	1.87			
CSS2#	Exhibit	93	9.00	1.38	2.008 (2,210)	.137	
	Rapist	20	9.65	2.58			
	Normal	100	9.23	.99			

non-transformed scores are presented (transformed scores are presented in Appendix I)

Appendix III

Sexual Attitudes Scales Scores of Recidivist and Non-Recidivist Exhibitionists

Variable	Group	n	M	SD	F(DF)	posthoc
AIV	Non-Recidivist	71	34.86	5.77	.126 (91)	.900
	Recidivist	22	34.68	5.74		
ASB	Non-Recidivist	71	47.31	10.52	1.680 (92)	.096
	Recidivist	23	43.26	8.33		
RMAS	Non-Recidivist	71	61.86	11.47	1.570 (91)	.120
	Recidivist	22	57.36	12.58		
CSS1	Non-Recidivist	71	12.42	2.74	-.927 (91)	.357
	Recidivist	22	13.09	3.57		
CSS2	Non-Recidivist	70	8.96	1.36	.139 (91)	.889
	Recidivist	23	9.00	1.00		