

**SOCIAL AND HETEROSOCIAL SELF-EFFICACY IN ADOLESCENT POPULATIONS
OF CHILD MOLESTERS, NONSEX OFFENDERS, AND NONOFFENDERS**

by

Patrick Bartel

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APPROVAL

Name: Patrick Bartel

Degree: Master of Arts

Title of thesis: Social and Heterosocial Self-efficacy in
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Nonsex Offenders, and Nonoffenders

Examining Committee:

Chairman: Dr. C. McFarland

Dr. R. Roesch
Senior Supervisor

Dr. D. Cox

Dr. W. Krane

Dr. R. Corrado
External Examiner
Faculty of Criminology
Simon Fraser University

Date Approved: Sept 15 80

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Social and Heterosocial Self-efficacy in Adolescent Populations

of Child Molesters, Nonsex Offenders, and Nonoffenders

Author: _____

(signature)

Patrick Bartel

(name)

Sept 22; 1989

(date)

ABSTRACT

The present study tested the hypothesis that adolescent child molesters would score lower than nonsex offending and nonoffending adolescent groups on measures of both social and heterosocial self-efficacy. Heterosocial self-efficacy was assessed using the Survey of Heterosexual Interactions (SHI) and social self-efficacy was measured using the social self-efficacy subscale of the Self-efficacy Scale (SES). Results indicate that the adolescent child molester group scored significantly lower than nonmolesting adolescents (both nonsex offending and nonoffending groups considered together) on both social and heterosocial self-efficacy. Subsequent analyses on the social self-efficacy measure indicated that the child molesters did not significantly differ from the nonsex offenders. When the child molesters were compared with the nonoffenders on this measure, the difference only approached significance. On the heterosocial measure, the child molesters did not significantly differ from the nonoffending adolescents but did score significantly lower than the nonsex offending groups. In addition to these two measures, comparisons were also made between these groups on the general self-efficacy subscale of the SES. These tests indicated no differences between the groups. Finally, additional information such as family background and previous sexual abuse were obtained for the child molester group. The results were discussed in terms of implications for etiology, treatment, and future research.

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INTRODUCTION

When discussing issues concerning sexual abuse, the popular conception is that adults make up the vast majority of offenders (Finkelhor, 1984). The stereotypical view in this case is one of a socially marginal person or 'dirty old man' whose sexual desires are directed, at least in part, to younger immature children (Lanyon, 1986). In the last few years there has been a growing awareness of the prevalence and effects of child sexual abuse (Browne & Finkelhor, 1986). Accompanying this trend has been a growing interest in research in the area of offender characteristics both in terms of demographic data and personality characteristics (Abel, Mittleman & Becker, 1985; Becker & Abel, 1985; Finkelhor, 1984; Segal & Marshall, 1985; 1986). Through research, it is hoped that a greater understanding of the offense behaviors may be gained, thereby assisting both clinicians and researchers in developing treatment and prevention strategies. As with popular opinion, however, the research literature has focussed almost exclusively on adult offenders.

With the increasing attention being paid to sex offense issues, however, it has now become apparent that sexual offenses are not limited to older adult offenders. Rather, it has been increasingly shown that younger adults and adolescents are responsible for a large proportion of the sexual offenses committed against both adults and children. Recent crime reports

and arrest statistics from the United States indicate that about 20% of all rapes and between 30 to 50% of all cases of child sexual abuse can be attributed to adolescent offenders (cited by Davis and Leitenberg, 1987). In addition, reports show that approximately 50% of adult convicted child molesters report that their first sexual offenses were committed during adolescence (Groth, Longo, & McFaddin, 1982). Unfortunately, there is little information concerning adolescent sexual offense rates in Canada. Nevertheless, it is apparent that there are a large number of sexual offenses being committed by adolescents in Canada with many cases ending up in the criminal justice system (Statistics Canada, 1985).

Despite the high prevalence of sexual offenses being committed by adolescents, relatively little attention has been paid to the adolescent offender in the professional literature. One reason for this relative lack of interest in the young offender is that such offenses are often regarded as merely sexual experimentation on the part of the adolescent (Groth, 1977). Previously, a diagnosis of 'Adolescent Adjustment Reaction' would often be given to adolescent who sexually offended against children (Groth & Lored, 1981). The sexual behavior in this case was viewed as a natural expression of normal male aggressiveness and curiosity and as a result, was not considered to be of any serious consequence (Atcheson & Williams, 1954; Becker & Abel, 1985). Because of this, much of the early literature on adolescent sexual offenders was quite

optimistic in terms of future offenses in later adolescence and adulthood. Doshay (1943), when discussing juvenile sex delinquency, considered the behaviors "self-curing, provided the latent forces of shame and guilt inherent in the moral-cultural patterns are properly stimulated into action" (p. 168, cited in Lewis, Shanok, & Pincus, 1981). His conclusions were based in part by the low recidivism rates he found among all types of adolescent sexual offenders including child molesters. In following 256 sex offending adolescents for 6 years, he found that approximately 6% had subsequently been arrested for a sexual offense. More recent statistics point to slightly higher recidivism rates. Smith and Monastersky (1986), in a study which followed up a group of adolescent sex offenders for a minimum of 17 months, found that 14% were found to have committed a subsequent sexual offense. Of their sample, 73% were originally referred for sexual offenses involving significantly younger victims. Unfortunately, it is impossible to determine if the recidivism rates are similar for the child molesters within that sample or whether the reoffenses also involved children.

Basing one's opinions simply on recidivism rates, however, can be misleading since they usually only refer to convictions for additional sexual offenses. Thus, this statistic ignores future arrests and dismissals where the case was taken to court but did not result in a conviction. Adding to the inadequacy of relying on recidivism rates is the courts' reluctance to prosecute juvenile sex offenders (Groth, 1977). Finally, a

once-convicted offender may repeat an offense with many victims but avoid being caught.

What has become apparent, however, is that the adolescent sexual offense does not represent a simple naive curiosity or experimentation. Groth (1977) has found that adolescent sexual offenses are typically not a first interpersonal sexual experience. Among a sample of juveniles referred to a Massachusetts forensic mental health facility, he found that 79% of adolescent child molesters had been involved in previous sexual offenses. Of those previous offenses, however, none involved actual sentencing. Fehrenbach, Smith, Monastersky, and Deisher (1986), in a study conducted at the University of Washington Sex Offender Program, found substantial evidence that 58% of the adolescent sex offenders, the majority of whom were child molesters, had committed at least one previous sexual offense. Becker, Kaplan, Cunningham-Rathner, and Kavoussi (1986) found that 63% of adolescent incestual child molesters were previously charged with a sexual offense. Furthermore, Groth and Longo (1983) have found that many adult sexual offenders began to act out sexually at an early age. They go on to suggest that if left untreated, these offense patterns may escalate to more serious and violent sexual assaults. In summary, these studies suggest that the adolescent child molesting behaviors of adolescents are more pervasive and ingrained than previously thought.

This lack of seriousness attached to the problem of adolescent sexual offenders has also been reflected in the dearth of available treatment programs. In 1982 in the United States, there were only two identified institutions dealing specifically with adolescent offenders (Longo, 1982). Even in cases where the sexual offenses are serious and clearly criminal in nature, family and community systems have ignored early warning signs, minimized the exploitive behaviors and denied the deviant nature of the sexual acts committed by the adolescents (Ryan, Lane, Davis, & Isacc, 1987).

With the growing awareness of the proportion of sexual offenses being committed by adolescents and the seriousness of these offenses, however, increasing attention is being paid to those adolescents convicted of sexual offenses with children. An increasing number of specialized programs and planning strategies are being devised for the treatment of such offenders (Margolin, 1983; Knopp, Rosenberg, & Stevenson, 1986). With the implementation of these treatment programs and strategies, many clinicians are optimistic about successful outcome. This is due in part to the fact that many clinicians working with adolescents feel that by confronting the problems during the formative years of adolescence, some lasting changes may be possible (Ryan, 1986).

What has become apparent, however, is that the treatment and intervention strategies that are being implemented greatly outpace our advances in knowledge about the adolescent sex

offender (Davis & Leitenberg, 1987). Until recently, empirical research on adolescent child molesters or rapists has been virtually nonexistent. Thus, instead of being based on clinical research with adolescents, the treatment programs that have been implemented have been based simply on untested suppositions regarding how to identify the juvenile sex offender who is likely to reoffend or on generalizations from adult treatment models (e.g., covert desensitization of deviant sexual arousal) (Smith & Monastersky, 1986).

Using these types of information in developing treatment programs, however, may result in poor outcomes. Clinical impressions, while useful in directing research and treatment strategies, are susceptible to biases and are often incorrect or misleading (Davis & Leitenberg, 1987). In addition, the comparison of children with adults may be inappropriate. A simple analogy likening adolescents to adult pedophiles is naive for, although these two different groups may share many characteristics in terms of personality and psychosocial dimensions, adolescents have many interpersonal needs and characteristics that differ from the adult. Physically and psychologically, adolescents are at a different developmental level than adults and this may relate to differences in the etiology of the molesting behaviors. The usefulness of both empirical findings with adults pedophiles and clinical impressions of adolescent child molesters, however, is in providing the researcher with a direction and possible

hypotheses for conducting research with the adolescent populations.

Regardless of what information clinicians rely on at present, what is needed are more empirical studies that compare and contrast adolescent child molesters with other adolescent groups on valid and reliable measures. Unfortunately, empirical research corresponding to the the postulated contributing factors of adolescent sex offenses is rare, and what little there is frequently contains serious methodological flaws. Standardized measures are rarely used and in the vast majority of studies, simple descriptive statistics have been reported without any comparison with nonsexoffending adolescents (Davis & Leitenberg, 1987).

Offender Characteristics

Only recently has the literature begun to address the distinctive nature of the adolescent offender. As a result, a great deal is still left unknown about the adolescent child molester. Nevertheless, a number of factors have been discussed in the literature which have been implicated as playing some form of a causal role in the onset of the adolescent's sexual offense. One such factor that has recently come into vogue is the atypical history in the psychosexual development of the adolescent sex offender (Longo, 1982). Of particular interest is the finding that many male adolescent sex offenders have been

sexually abused at an earlier age. Longo (1982) reported that 47% of the sex offenders in his study had been sexually abused. These rates may not be representative of sex offenders in general, however, since his sample was drawn from those adolescents who were tried in adult court due to the seriousness of their offense. Gomez-Schwartz (1984) also found high levels of previous sexual abuse among adolescent sex offenders as 38% were confirmed and an additional 17% were highly suspected of having been abused as a child. This study, however, did not distinguish child molesters from other sex offenders. Nevertheless, findings such as this have led researchers to suggest that the sexually abusive behavior is part of a cyclical pattern of abuse (Groth, 1977). While this is a provocative thesis, it is clear that not every adolescent sexual offender has been sexually victimized as a child. Indeed, Fehrenbach, et al. (1986) have found the percentage of adolescent sex offenders who have been sexually abused to be much less at 19%. This study included a broad range of adolescent sex offenders and is probably much more representative of the child molester population in general. Similarly, Becker et al. (1986) noted that 23% of their nonincarcerated incest offender sample had been sexually abused. Regardless of which frequency rates one uses, the fact that the majority of sex offenders have not been sexually abused suggests that there are other factors which play a role in the etiology of sexual offenses.

An area that has been particularly neglected in the research literature has been the area of adolescent sex offender personality characteristics. Here it is thought that by studying the personality and psychological characteristics of the adolescent sex offender, basic questions such as what factors distinguish offenders from nonoffender adolescents may be answered. Many clinicians have suggested that certain personality characteristics may contribute to the etiology of the sex offending behaviors including lack of intimacy, lack of moral development, cognitive distortions about the acceptability of such behaviors, gender identity confusion, feelings of male inadequacy, low self-esteem, and poor impulse control (Davis & Leitenberg, 1987).

Unfortunately, only two studies have attempted to go beyond hypothesizing and have empirically investigated some of these variables. Gomez-Schwartz (1984) found that 80% of adolescent sex offenders scored below age appropriate levels on a scale of ego development suggesting that they have only a rudimentary understanding of right and wrong and thus have difficulty conforming to societies expectations. To say that these characteristics are unique to the sex offenders is presumptuous, however, since no comparisons were made with nonsex offending controls. Thus, it may be that low ego development is more characteristic of delinquency in general as opposed to sex offense behavior.

Van Ness (1984) found that 63% of an incarcerated sample of adolescent sex offenders scored below average on a measure of anger control in comparison with 26% of nonsex offending delinquents. This finding, however, does not address whether the sex offenders also had greater anger to begin with or just less skill in controlling anger.

Unfortunately, these two studies leave many questions unanswered. For example, both studies have investigated very heterogeneous groups of adolescent sex offenders and, as a result, may have overlooked important differences between different offender types (i.e., rapists versus child molesters). Thus, even if the findings are significant, it is unknown if the adolescent child molesters within that sample share those same characteristics that distinguish the larger sex offender group from nonsex offending adolescents.

In addition to the hypothesized personality characteristics, many clinicians have suggested that social skill deficits may be causally related to the aberrant sexual behaviors. Based on clinical impressions, both Groth and Loredó (1981) and Deisher, Went, Paperny, Clark and Fehrenbach (1982) have found that the juvenile sexual offender has tended to be a loner with little skill in negotiating emotionally intimate peer relationships with members of either sex. Likewise, Groth, Hobson, Lucey, and St. Pierre (1981) have found that in general juvenile sex offenders have deep seated feelings of inferiority, inadequacy, a lack of self-confidence, and immaturity which in turn leads to

difficulty in establishing interpersonal relationships and to severely restricted social lives. Becker and Abel (1985) have also noted that sex offending youths lack assertiveness and other social skills that might cause them to fear rejection and isolate them from their peers. In a study of adolescent child molesters, Shoor, Speed, and Bartelt (1966) have also noted a 'pan-immaturity' where there is a lack of knowledge in areas of social and sexual activity in the majority of the molesters. From these perspectives, the offense behaviors are seen as a reaction against these feelings of inadequacy. In this case, the offense reflects a struggle for control, a quest for identity, and a discharge of emotion (Groth & Lored, 1981).

Again, caution must be taken when relying on the above findings since they are all based on clinical impressions and judgments. What is needed is some objective criteria on which to base these conclusions. Until now, virtually no research has compared adolescent sex offenders with other adolescents on any battery of measures of social competence such as fear of negative evaluation, shyness, conversational and communication skills, social anxiety, etc..

Research with adult sexual offenders has been more methodologically sound and offers more definitive conclusions about what characteristics distinguish them from those with no history of sexual offenses. Studies have compared adult populations of child molesters, rapists, non-sex-offenders, and nonoffenders on a number of measures of social skills,

heterosocial skills, and social anxiety. Overholser and Beck (1986) found that both child molesters and rapists appeared socially unskilled in comparison with community based controls. Their study had subjects participate in naturalistic controlled interaction and in role-play scenes. They found that heterosocial skills as assessed by behavioral and self-report measures were significantly lower in both rapists and child molesters. Barlow, Abel, and Blanchard (1977) compared 10 sexual deviates interested in receiving social skills training with 20 socially skilled males on a social skills behavioral assessment and found that conversation, form, voice, quality and affect levels reliably discriminated the 2 groups with the sexual deviates scoring lower.

In contrast with these findings, however, Segal and Marshall (1985) could find little evidence of any difference between adult sex offenders and other prison controls on role-play assessments of interactions with both female and male confederates and on a number of self-report measures of perceived anxiety, social competence, and assertiveness in social situations. In a very similar study comparing adult rapists with nonsexual offenders and nonincarcerated controls, Stermac and Quinsey (1986) found that while rapists were seen as less socially competent than the noncriminal subjects, they did not significantly differ from the nonsex offending incarcerated control group.

The studies which have looked at adult populations of sex offenders help to demonstrate the problem in relying strictly on clinical impressions in the assessment of characteristics such as social skills. As with adolescents, adult sex offenders have long been thought to have significant social skills deficits (Abel, Blanchard, & Becker, 1985; Hobson, Boland & Jamieson, 1985). Despite these impressions, however, detailed social skills assessments based on standardized measures have yielded inconclusive results. As with the adult population, until similar comparisons are made between adolescent populations of sex offenders and controls, judgments about poor social skills and personality deficits will remain conjecture.

Subtypes of Adolescent Sexual Offenders

As mentioned previously, one problem with much of the literature thus far is that researchers have failed to distinguish between types of adolescent sexual offenders. Thus, when discussing personality characteristics, adolescent child molesters, rapists, and other paraphilias are rarely considered separately. By ignoring these distinctions, however, some important differences between these groups might be overlooked. It is likely that the etiology of these various forms of sexual offenses are different (Groth & Birnbaum, 1979). Indeed, the nature of the offenses themselves suggest that different factors are involved. Rape is often a much more violent offense where physical force and anger are often involved. In contrast, child

sexual abuse is typically a nonviolent act where verbal persuasion is the primary mode of coercing the victim (Groth, 1977). Again, very little of the research literature has addressed the possible distinction between various subtypes of adolescent sex offenders.

Research that has included comparisons between various subtypes of adult sex offenders has indeed found evidence for such distinctions. Segal and Marshall (1985) compared adult child molesters, rapists, and three other control groups on a battery of social competence measures. They found that in comparison to the rapists, the child molesters rated themselves as less skilled and more anxious during typical heterosexual interactions and poorer in situations involving positive assertion or accepting praise. In fact, the child molesters were usually the lowest scoring group on all measures included in the study, although this trend did not always reach statistical significance. An additional study by Segal and Marshall (1986) found that the child molesters were significantly poorer than the rapists at predicting and evaluating how well they would answer the questions posed to them in a conversation role play. In both of these studies, however, the researchers did not match the subjects on age, leaving open the possibility that the results were attributable to age differences as the child molesters were older than the rapists.

In contrast, Overholser and Beck (1986) found that when matched on a number of demographic variables including age,

child molesters and rapists did not differ on a number of social skill measures. They did find, however, that child molesters displayed significantly more fear of negative evaluations and that rapists displayed higher physiological indices of anxiety during role-play scenes that demanded assertive responses.

While no empirical research has addressed the possible distinction between various subtypes of offenders within an adolescent population, various researchers have speculated on this possibility. Fehrenbach et al. (1986) have noted differences between what they referred to as hands on offenses (i.e., rape and indecent liberties which involve fondling short of penetration and touching) committed against peer aged or older victims and those committed against children. They noted that child molesters were more socially isolated and had fewer friends and that they preferred the company of children. Similarly, Saunders, Awad, and White (1986) found evidence for the classification of 3 distinct types of adolescent sexual offender: 1) Courtship disorders (e.g., exhibitionism, toucherism, and obscene phone calls); 2) Sexual assaulters (adolescents who assault victims their own age or older; and 3) Pedophilic offenses (adolescents who sexually molest children). Their findings were based on descriptive data such as family background and their adjustment at home, school and in the community. Using this information, the authors also found that the sexual assaulters had better peer relations and were less likely to be socially isolated than the other two groups.

Whether these same differences would be found using more thorough and objective measures is unknown.

Clearly, comparison studies are needed in order to determine if indeed there are distinctions between various subtypes of adolescent sex offenders. Studies with adult sex offenders and clinical impressions of adolescent sex offenders do seem to suggest that child molesters perceive themselves as more heterosexually inadequate than both rapists and other normal samples. While clinical observations and impressions suggest personality differences among adolescent child molesters and nonmolesters, it is not until controlled research with standardized measures is conducted that we can conclude with any certainty that such differences exist. The present study will attempt to overcome some of methodological flaws of previous research in the area of adolescent sex offender characteristics and it will also attempt to fill some of the gaps in our knowledge of the adolescent child molester.

The Construct of Self-efficacy

The present study will look at self-efficacy in relation to sexual behavior. In particular, it will be addressing whether levels of social and heterosocial self-efficacy in an adolescent population can differentiate those who engage in "normal" sexual behavior (relations involving those of similar age or maturity) from those who engage in a class of abnormal sexual behavior

(child sexual abuse).

The concept of self-efficacy was introduced relatively recently by Bandura (1977) and concerns the role of self-referent thought in psychosocial functioning. Thus, self-efficacy is a cognitive process and is considered to be that part of a person's self-system that relates to how people perceive their abilities. More specifically, "perceived self-efficacy is a judgment of one's own capabilities to accomplish a certain level of performance" (Bandura, 1986, p. 391). The construct is thought to involve a generative capability in which cognitive, social, and behavioral subskills are organized into integrated courses of action.

According to Bandura (1977), expectations of perceived efficacy are derived from four principle sources of information: past performance accomplishments, vicarious experience, verbal persuasion, and physiological states. Self-efficacy is not simply based on the level of skills one has or on how well one has performed those behaviors previously. Nor is it a general feeling of confidence. Rather, it is based on a self-belief of how capable one is in using particular skills under diverse circumstances.

Bandura (1977) considers expectations of self-efficacy to be the most powerful determinants of behavior change because they determine the initial decision to perform a behavior, the effort expended, and the persistence in the face of adversity.

According to self-efficacy theory, all forms of therapy and behavior change operate through the alteration of the individual's expectations of personal mastery. Indeed, empirical research has demonstrated the predictive power of self efficacy judgments (Bandura, Adams, Hardy, & Howells, 1980). Research has also shown that when challenged with obstacles, or failure, those individuals who experience serious doubts about their capability (low self-efficacy) tend to decrease their efforts and give up, whereas those with a strong sense of self-efficacy will exert greater effort to master the task (Bandura & Shunk, 1981). Not only will higher efficacy expectations determine the degree of effort people will expend but it will also determine how long people will persist in attempting a given task (Bandura, Adams, & Beyer, 1977).

In trying to better understand the construct of self-efficacy it is important to distinguish it from other related concepts such as expectancy outcomes, self-esteem, and self-concept in general. Outcome and efficacy expectations differ in that efficacy expectations refer to an estimation of one's own ability or competence to execute certain behaviors while an outcome expectancy is defined as a person's estimate that a given behavior will lead to certain outcomes (Bandura, 1982). Thus, individuals may believe that a certain course of action will produce certain outcomes, but if they entertain serious doubts about whether they can execute the necessary behaviors it may influence their behavior. Studies which have

controlled for various other factors have found that self-efficacy appraisals predicted performance much better than expected outcomes (Barling & Abel, 1983).

According to Bandura (1986), self-efficacy should also be distinguished from the more global self-concept which is more of a composite view of oneself. The self-concept is considered to be generated through the interactions with significant others and is seen to be more stable and affect laden. Likewise, Bandura also suggests that self-esteem differs from self-efficacy in that the former pertains to the evaluation of self-worth which depends partially on how the culture values the attributes one possesses and how well one's behavior matches their personal standards of worthiness.

There may be an overlap between these other constructs and self-efficacy, particularly as one moves into domains of behavior that are important for personal identity. Thus, there may be modest correlations between the area of social self-efficacy and constructs such as self-esteem. Indeed, Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs, and Rogers (1982) have found significant correlations between a general self-efficacy scale and measures of self-esteem, personal control, interpersonal competency, and ego strength. In addition, they found modest correlations between a social self-efficacy scale and measures of interpersonal competency and self-esteem. While there may be some relationship between self-efficacy and these other constructs, they are not to be

considered synonymous with personal efficacy. Thus, it is important to consider self-efficacy alone since it does tap into the area of perceived capabilities in certain areas of functioning which these other constructs may not.

Another important distinction to make when considering the self-efficacy construct concerns the generality of the construct. According to Bandura (1986), the theoretical conception of self-efficacy does not refer to a global disposition that is consistent across all domains of behavior but instead, it refers to particularized self-percepts of efficacy that may vary according to the type of behavior and the particular circumstances. Thus, it is possible that people may judge themselves efficacious in a certain domain of functioning such as academic achievement, but at the same time judge themselves incapable in another domain such as athletics.

Early research into the self-efficacy construct focussed primarily on phobic behaviors and the effects of particular modes of treatment on perceived self-efficacy and performance. These studies demonstrated the predictive power of self-efficacy judgments with regard to the degree of behavioral change with snake phobics and agoraphobics (Bandura, 1977; Bandura et al., 1977; Bandura et al., 1980). Since these early studies, the theory of self-efficacy has rapidly passed from being a novel explanation of certain types of behavior to being a widely accepted theory which has extended to many domains of functioning. In recent years, theory and research have come

together to validate the construct of self-efficacy. Various measures have been constructed and the concept of self efficacy has been extended to a number of different domains of functioning including physical stamina (Gould & Weiss, 1981), arithmetic skills (Schunk, 1982) career choice (Betz & Hackett, 1981), smoking behavior (Condiotte & Lichtenstien, 1981) and many others.

Recent research has also extended the self-efficacy construct to heterosexual and interpersonal relations (Robins, 1987; Segal & Marshall, 1986; Moe & Ziess, 1982). Barrios (1983) found that perceived self-efficacy in social situations with members of the opposite sex was a sensitive indicator of self-reports of anxiety, of motoric performance on targeted and generalized tasks (i.e., role-playing behavior with a female confederate) and of the degree of coping behavior exhibited in response to aversive social stimuli. The study also found that the strength of self-efficacy expectations was related to the extent to which subjects perservered in the face of obstacles and aversive experiences.

The Measurement of Self-efficacy

Early research into the self-efficacy construct operated under the assumption that self-efficacy assessments must be highly precise and specific since these judgments referred to specific behaviors. An example of a specific self-efficacy

judgment would involve how capable one would feel in starting a conversation with a particular girl or how able one would feel in touching a snake. In theory, then, the most informative self-efficacy analysis requires a detailed assessment of the level, strength, and generality of the perceived efficacy along with the a precise measurement of the performance (Bandura, 1986; Barrios, 1983). In contrast, more global measures of perceived self-efficacy or defective measures of the performance will result in discordances.

Despite the highly situation-specific conceptualization of the self-efficacy construct, there is evidence that the experiences of personal mastery that contribute to self-efficacy expectations generalize to actions other than the target behavior (Bandura, 1977; Bandura et al., 1980). Thus, individuals whose past experiences involve varied and numerous successes may be expected to have higher self-efficacy expectancies in a greater variety of situations than individuals with a lesser degree of success.

Taking this into consideration, several researchers have attempted to develop more general measures of self-efficacy which are not tied to specific situations or behaviors. Moe and Zeiss (1982) have developed a measure whose dimensions are based on ratings of personal attributes demonstrated in conversation (e.g., being friendly, keeping a positive outlook, etc.). Likewise, Sherer et al. (1982) developed the Self-efficacy Scale which consists of both a general and social self-efficacy

subscale. Both of these measures differ from the standard self-efficacy assessments in that the items in the questionnaires refer to social situations in general rather than to specific situations that the subject must face. The disadvantage with scales such as these, however, is that they do not provide as accurate an estimate of one's self-efficacy expectations in specific situations. This is because when dealing with unambiguous situations, more specifically worded questions or direct behavioral measures will likely be more precise. Nevertheless, these general questionnaires do have a great deal in common with the more specific measures in that they measure generalized self-efficacy expectations that are dependent on past experiences and on tendencies to attribute success to skill as opposed to chance (Sherer et al., 1982).

Social and Heterosocial Self-efficacy in Adolescent Child

Molesters

In relating the construct of self-efficacy to the area of adolescent child molesters, it is possible that those adolescents who choose to molest significantly younger children possess lower interpersonal or heterosocial self-efficacy judgments than nonmolesting adolescents. As previously mentioned, clinicians have suggested that feelings of male inadequacy among adolescent offenders may be a factor that has etiological significance to their offenses (Davis & Leitenberg, 1987). These feelings of male inadequacy can be interpreted as

reflecting low self-efficacy judgments in the area of heterosocial functioning. In adult populations, both clinical observations and empirical studies suggest that patterns of low self-judgments are evident among child molesters. Segal and Marshall (1986) suggest that what is lacking among adult child molesters is an accurate appraisal of their own social competence. They found that child molesters underestimated their skills and abilities in conversing with a female confederate.

In order to relate these low self-judgments to the act of child molestation, however, what is needed is a demonstration that such self-efficacy judgments affect the type of behaviors that are eventually decided upon. As mentioned previously, empirical research in areas other than child molestation have linked the construct of self-efficacy to the eventual choice of behavior. Thus, while people with high levels of perceived self-efficacy have tended to show more vigorous and persistent efforts and have high performance attainments, people who regard themselves inefficacious in a particular domain of functioning will shy away from difficult tasks, slaken their efforts and give up readily in the face of difficulties (Bandura, 1986). Here, not only will people tend to avoid situations they believe exceed their capabilities but they will often lower their aspirations and undertake and perform assuredly activities they do judge themselves capable of performing (Bandura, 1977).

This being the case, it follows that among adolescent child molesters, those who perceive themselves incapable of forming

intimate relationships with those of similar age or maturity may avoid establishing intimate contact with similar aged people and instead, pursue intimate relationships they do judge themselves capable of forming. Indeed, it has been hypothesized that a primary reason for persons choosing to pursue sexual contact with children is that they lack the self-confidence in social situations and judge themselves incapable of establishing normal sexual contact with similar aged persons: they have a low sense of interpersonal self-efficacy (Finkelhor, 1984; Loss & Glancy, 1983). Instead of pursuing normal peer aged relationships, those who do engage in child sexual abuse are thought to adjust their level of expectation and perceive themselves as capable of establishing sexual contact with children. This is because children pose less of a threat to one's sense of efficacy and esteem. Indeed, clinicians have observed that among various types of juvenile sex offenders, child molesters were characteristically more passive in their orientation to life and were more comfortable with children than with peers (Deisher et al., 1982; Groth, 1977). Such observations would be consistent with the hypothesis that child molesters have lower judgments of both heterosocial and social self-efficacy than non-child-molesting adolescents. In this way, self-efficacy may be causally linked to the pursuit of children as sexual objects.

While there have been numerous discussions on this topic, no empirical research has addressed the issue of differences in self-efficacy among adolescents who engage in socially

appropriate sexual behavior and those who engage in inappropriate sexual behavior such as child sexual abuse. Among adult populations, only one study has looked at self-efficacy among child molesters and other offender and nonoffender groups. This study investigated the relationship between self-efficacy predictions and actual performance during a conversation role play and found that the child molesters also scored significantly lower on both general and situation specific measures of heterosocial self-efficacy than rapists, non-sex-offenders and nonoffenders (Segal & Marshall, 1986; Segal & Marshall, 1985). An interesting finding from this study is that the low self-efficacy judgments seemed to be independent of social skills. This is because the child molesters, despite rating themselves as less skilled and less capable during a typical heterosexual interaction, were judged by confederates and blind judges to be no different than rapists, prison controls, or low SES normals on ratings of social behavior. This would indicate that the feelings of inadequacy are based more on cognitive processes than actual social skill deficits. Furthermore, if these deficits are related to the molesting behavior, this finding would lend support to the hypothesis that it is low heterosocial self-efficacy which is related to sex offending. Again, it is unclear whether these findings with an adult population can be generalized to an adolescent population.

The Present Study

The present study will be comparing levels of social and heterosocial self-efficacy between adolescent child molesters and two other comparison groups. There will be three groups included in this analysis; adolescent child molesters; adolescent nonsex offenders; and nonoffender adolescents.

Ideally, a similar analysis of separate groups of adolescent sex offenders would be helpful in determining if levels of social or heterosocial self-efficacy are differentially related to the nature of the offense. Unfortunately, there are a limited number of adolescent sex offenders available for this study. As a result, adolescent child molesters make up the only meaningful group of subjects whose numbers are suitable for statistical analyses.

In addition to formal statistical analyses, descriptive data will also be obtained and discussed. These include demographic information, and offense data. Finally, information concerning the sex offenders' crimes and sexual abuse history will be obtained. This information is provided purely as descriptive data. No specific hypotheses are offered. These data will be discussed, however, in relation to how or if these variables affect the etiology of the sex offense behavior.

Hypotheses

For the present study, the following hypothesis are offered regarding levels of self-efficacy.

1) Adolescent child molesters will score significantly lower than both nonsex offending adolescents and nonoffending adolescents on measures of social self-efficacy.

2) Adolescent child molesters will score significantly lower than both nonsex offending adolescents and nonoffending adolescents on measures of heterosocial self-efficacy.

An additional analysis will compare the above groups on measures of general self-efficacy. While there is no obvious indication in the literature that these groups should differ on levels of general self-efficacy, it is possible that differences do exist. If this is the case, these differences may have important implications for treatment planning. Regarding the analysis of general self-efficacy, no specific hypotheses are provided.

METHOD

Subjects

Three groups ranging in size from 18 to 20 subjects each participated in this research program. All subjects were male adolescents between the ages of 14 and 18 years. The groups involved in the study include adolescent child molesters, adolescent nonsex offenders, and adolescent nonoffenders.

There were 20 subjects in the nonoffending adolescent group. They were obtained largely from YMCA teen groups located in Vancouver, West Vancouver and North Vancouver with additional subjects obtained from the Coquitlam area. All subjects in this group had no sexual offense or other criminal offense history. The mean age of the nonoffender group was 16.18 years. The mean education level was grade 9.85. Based on information about parental occupation and place of dwelling, it is estimated that the majority of this group come from a middle to upper socioeconomic background. Of this group, 19 were white and one was oriental.

Subjects in the nonsex offending group were obtained from the House of Concord located in Langley. The House of Concord is a residential home for adolescent males on probationary order from the courts and is operated by the Salvation Army. It is not a lock up unit but it is a highly structured environment geared towards lifeskills enrichment. Adolescents from throughout the

province, both rural and urban, are housed there. All subjects had been convicted of a criminal offense and were on a probationary order at the time of this study. In addition, none of the nonsex offending subjects included in this study had any sexual assault history. There were 2 subjects obtained for this group who were subsequently excluded as a result of being either convicted or suspected of committing a sexual assault.

This group was comprised of 20 subjects. The mean age for the nonsex offending group was 15.85 years and the mean education level was grade 8.6. Of this group 17 were caucasian, one native indian, one east indian, and one black. Based on parental occupation and place of dwelling it is estimated that the majority of subjects in this group come from a lower to middle socioeconomic background.

Subjects in the adolescent child molesters group were obtained from the British Columbia Juvenile Services to the Courts (JSC) located in Burnaby. JSC provides the courts with assessment and treatment services on an outpatient basis. The adolescents in this sample were all involved in some form of group and/or individual treatment program as a result of committing a sexual offense. The amount of time that subjects had been involved in treatment at the time of participating in this study ranged in length from 2 weeks to 3 months. Treatment in this case typically involved helping the adolescent in identifying deviant behavior patterns and risks for reoffending as well as assisting the adolescent in improving social skills.

All sex offenders involved in this study were convicted of either sexual assault or gross indecency and were referred to JSC either by a court or probation order. All sex offender subjects were on probation. At the time of this study, approximately 75% of the sex offender subjects were living in some form of open custody unit. The remaining subjects were living at home.

There were 18 subjects in the child molester group. The mean age was 15.8 years and the mean education level was grade 8.5. Based on a parental occupation and place of dwelling it is estimated that the majority of sex offender subjects come from a middle to lower socioeconomic background (although the group did span the whole range of SES). Of this group, 15 were caucasian, and 3 were native indian.

The Definition of Child Molester

The delineation of what distinguishes adolescent child molesters from other adolescent sex offenders is somewhat of an arbitrary one. This is because child molestation or pedophilia has typically been defined in terms of an adult offense or disorder. The DSM-III-R classification of pedophile requires that a person be at least 16 years of age and 5 years older than the child or children whom the sexual acts were perpetrated against (American Psychiatric Association, 1987). In addition, the DSM-III-R denotes that this diagnosis excludes late adolescents

involved in ongoing relationships with 12 or 13 year olds. Thus, according to this diagnostic category, adolescents younger than 16 years are excluded. One study which has looked at adolescent sexual offenders categorized child molesters on the basis of whether the victim was 5 years younger than the offender and below the age of 10 years (Groth, 1977). In this study, adolescents as young as 14 years were included in the child molester group. Apart from these particular categorizations, in most conventional conceptualizations of pedophilia, victims are typically seen to be too young to be able to give voluntary consent to sex with an older person. As such, they are typically required to be preteen or prepubescent.

For the present study, subjects in the adolescent child molester group will be those offenders who have been convicted of or who have admitted to at least one sexual offense where the victim was below the age of 10 years and at least 5 years younger than the offender at the time of the offense. The victim's age is set at a maximum of 10 years so as to more confidently assure that the victim is prepubescent. In addition, the present study will not be using the term pedophilia as it is unclear whether the offenders at this age have the ingrained sexual preference patterns which the DSM-III-R definition requires for the diagnosis of pedophilia.

For two subjects in the child molester group, the victims were aged 11 years at the time of arrest. They were included in the child molester group, however, because the offenses had been

occurring for a period of three or more years and the offender was more than 5 years older than the victim.

Measures

The measures used for this study consist of three self-report paper and pencil questionnaires:

General Information Questionnaire: This self-report measure was designed by the experimenter as a means of obtaining some general information such as age, education level, and parental occupations (see Appendix A). In addition, a number of true or false questions were asked regarding sexual preference, sexual behavior and previous sexual offenses. The sexual preference item was included in order to determine that the subjects in the study were heterosexually oriented. This is important for the present study since it is possible that a number of homosexually oriented persons within a sample might bias the results, particularly on the heterosocial self-efficacy measure. The remaining items were included as a validity check to more confidently ensure that the two non-sex-offender samples did not contain subjects who had previously been involved in sexual offenses.

Self-efficacy Scale (SES): This scale measures general beliefs in one's own competencies. It consists of 23 items (rated on a 5 point scale) designed to measure general expectations of self-efficacy that are not tied to specific situations or

behavioral domains (Sherer, Maddox, Mercandante, Prentice-Dunn, Jacobs, & Rogers, 1982). The SES consists of two subscales; general self-efficacy (17 items) and social self-efficacy (6 items). Both subscales have adequate reliability with Cronbach alphas of .86 and .71 respectively. The general self-efficacy scale has been shown to have good criterion validity by predicting past vocational, educational, and military success. Likewise, the social self-efficacy subscale also demonstrated good criterion validity by predicting past vocational success (Sherer, et al., 1982). Evidence for the construct validity of the SES was provided by the confirmation of several predicted relationships between the Self-efficacy subscales and other personality measures such as Locus of Control, Personal Control, Social Desirability, Ego Strength, Interpersonal Competence, and Self Esteem (Sherer, et al., 1982) as well as with various MMPI scales, Sex Role attitudes, and Assertiveness measures (Sherer & Adams, 1983).

This scale was originally developed using undergraduate students and inpatients from a Veterans alcohol treatment unit. Thus, there are no norms for an adolescent population.

Survey of Heterosexual Interaction (SHI): While this scale was originally developed to measure heterosexual avoidance in males, it is best considered a measure of perceived heterosocial self-efficacy (Bandura, 1977). The SHI is a 20 item questionnaire where each individual item describes a situation involving a heterosexual interaction. On each item, the subject

is asked to indicate on a 7 point scale how capable he would be of coping with the situation being presented, with lower scores reflecting low self-rated ability. The instrument is designed to evaluate males perceived ability to handle social situations involving interactions with women (Twentyman, & McFall, 1975). "Several studies have shown the SHI to be a useful device for identifying individuals who tend to experience difficulties in heterosexual interactions" (Corcoran & Fischer, 1987, p. 345). The SHI has very good concurrent validity, correlating significantly with reported anxiety in heterosocial interactions and with self-reported behavior in social situations (Barrios, 1983; Twentyman, Boland, & McFall, 1981; Wallander, Conger, Mariotto, Curran, & Farrell, 1980). Barrios (1983) provided evidence for the construct validity of the SHI when he obtained correlations of 0.81 and 0.86 with pre and post treatment situation specific self-efficacy ratings. The SHI has also been shown to have good internal consistency with split-half correlations of .85 and a four week test retest reliability of .85 (Twentyman, et al., 1981).

As with the SES, the norms for the SHI were developed on college undergraduates and as a result there are no norms for an adolescent population. In addition, the items on the measure were designed with a college population in mind. Because of this, the measure as it originally stands is somewhat inappropriate for a younger adolescent population. To make this measure appropriate for the present study several modifications

were made. These included wording changes (e.g., changing 'woman' to 'girl your own age') and the changing of question scenerios (e.g., changing from a university setting to a highschool setting) (see Appendix A). In addition, the original SHI includes a number of items which ask about recent dating experience. Because the majority of subjects in this study have severe social limitations placed on them as a result of their crimes and because these items don't make up part of their score on the SHI, these specific items were excluded from the SHI for this study.

Procedures

Because all of the subjects participating in the present study were minors, informed consent was obtained from the parents or guardians before the administration of the questionnaires (see consent form in Appendix B). Due to the fact that most of the offender subjects in this study were living away from home, the obtainment of parental consent for the offender subjects was not obtained. This did not pose a significant problem, however, since what is being required of the subjects is the filling out of nonstressful and nonintrusive questionnaires. As such, consent was obtained from the directors of the Juvenile Services to the Courts and the House of Concord who were serving as the adolescent offenders' temporary guardian while in custody. Apart from obtaining consent from the directors of the institutions, informed consent was also

obtained from the subjects themselves prior to the administration of the measures.

The self-report measures were administered to the offender subjects within the institutional settings. The majority of offender subjects completed the questionnaires in groups ranging from 3 to 7 persons. Before the subjects began completing the self report measures they were given a brief outline of the procedures. Informed consent was obtained before they began completing the measures and the subjects were also be notified that they may withdraw from the study at any time. In addition, subjects were told that all information will be kept strictly confidential and that none of the information obtained in the study will go on the offender's record or file. Information regarding offender demographics, type of offense, and victims' age were obtained directly from the offenders' files at the institutions. For this information, confidentiality was maintained via a system of numbers and codes whereby all names were removed from the data.

For the majority of nonoffender subjects, the self-report measures were administered in groups while they were attending their YMCA teen group meetings. Four of the nonoffender subjects completed the measures individually at their homes. All of the information regarding the nonoffender subjects were obtained strictly from the questionnaire package.

RESULTS

Characteristics of Subject Groups

Information on subjects' age, grade level, ethnicity and sexual preference were gathered for all subjects in the study (summary statistics are presented in Table 1). All subjects included in the analyses had answered true to the item: I am strictly heterosexual (only interested in female sex partners). One subject in the nonoffender group had answered this item as false and was thus eliminated from the study.

Analyses of variance were conducted on the age and grade level variables in order to determine if the three groups were equivalent on these variables. The ANOVA performed on the age variable showed no significant differences between the groups. On the grade level variable, however, the ANOVA indicated that there were group differences, $F(3,53) = 9.55, p < 0.001$. Subsequent pairwise comparisons using the Fisher test showed that the nonoffender group had a significantly higher grade level than both the nonsex offender group, $t(55) = -4.87, p < 0.01$, and the child molester group, $t(55) = -3.39, p < 0.001$. In contrast, the two offender groups did not significantly differ on the grade level variable.

Table 1

Characteristics of Subject Groups

	Child Molesters	Nonsex Offenders	Non- Offenders
Total N	18	20	20
Age:			
mean	15.83 years	15.85	16.18
range	14-18	14-17	15-17
Education:			
mean grade	8.5	8.65	9.85 *
range	6-11	8-10	9-11
Race:			
white	15 (83%)	17 (85%)	19 (95%)
native indian	3 (17%)	1 (5%)	0 (0%)
other ¹	0 (0%)	2 (10%)	1 (5%)

* $p < 0.05$ ¹ other in this case refers to blacks, east indians, and orientals.

Offense and Offender Characteristics

Information taken from the offender subjects' files indicates that 7 child molesters (39% of the child molester sample) and 19 nonsex offenders (95% of the nonsex offender sample) had been convicted of previous criminal offenses (see Table 2). Of those with previous convictions, two child molesters (11%) had been convicted of a previous sexual assault charge while none of the nonsex offenders had been previously convicted of a sexual assault charge. One of the child molesters with a sexual assault history had been convicted twice for sexual assault while the other had been convicted of only one previous sexual assault charge.

In addition, one child molester (or 6% of the total child molester sample) and 4 nonsex offenders (or 20% of the nonsex offenders) had previously been convicted of assault (nonsexual assault). Each of these offenders had only one previous assault conviction. Finally, six child molesters (33%) and 18 nonsex offenders (90%) had previously been convicted of nonassault charges. The majority of the nonassaultive convictions consisted of property offenses such as Theft Under \$1000 and Break and Enter. For those child molesters with a prior nonassault conviction, the mean number of previous nonassault convictions was 2.3. For those nonsex offenders with prior convictions, the mean number of previous nonassault convictions was 3.85.

Information regarding alcohol and/or drug problems was also gathered for both of the offender groups. Exactly what constituted an alcohol or drug problem was sometimes unclear. For the present study, subjects were considered to have a drug problem if it was specifically stated in the reports contained within the files or if there was mention of heavy drug or alcohol use during the last two years. Subjects were considered to have no alcohol or drug problem if there was explicit mention of there being no problem. If no mention was made regarding substance use, then it was recorded as unknown. From the present child molester sample, 3 subjects or 16% of the sample had a drug or alcohol problem, 10 subjects or 62% did not, and for the remaining 4 subjects no data were available. For the nonsex offender group, 7 subjects or 35% of the group did have an alcohol or drug problem, 35% did not, and for 6 of the subjects no data were available.

Information regarding living arrangements prior to the conviction was also obtained for both offender groups. Of the child molester group, three subjects had been living with both natural parents, two with either their father alone or with their father and stepmother, eight with either their mother alone or with their mother and stepfather, one with foster parents, one with adoptive parents, and one in a group home. Of the nonsex offender group, seven subjects had been living with their natural parents prior to conviction, two with either their father alone or with their father and stepmother, eight with

Table 2

Offender and Offense Characteristics

	Child Molesters	Nonsex Offenders
Total N	18	20
Living arrangements prior to offense:		
natural parents	3 (17%)	7 (35%)
father ¹	4 (22%)	2 (10%)
mother ²	8 (44%)	8 (40%)
foster parents	1 (6%)	2 (10%)
institution or group home	1 (6%)	1 (5%)
adoptive parents	1 (6%)	0 (0%)
other relative	0 (0%)	1 (5%)
Previous offenses:	7 (39%)	19 (95%)
subjects with previous sexual assault convictions	2 (11%)	0 (0%)
mean no. of convictions ³	1.5	0
subjects with previous nonsex assault convictions	1 (6%)	4 (20%)
mean no. of convictions	1	1
subjects with previous * nonassault convictions	6 (33%)	18 (90%)
mean no. of convictions	2.3	3.85
Alcohol/drug problem:		
yes	3 (16%)	7 (35%)
no	11 (63%)	7 (35%)
unknown	4 (21%)	6 (30%)

¹ includes father or father with stepmother

² includes mother or mother with stepfather

³ mean no. of convictions per subject within that offense type

either their mother alone or with their mother and stepfather, two with foster parents, one with other relatives (i.e., sister), and one in a group home.

Sex Offense Characteristics

Information regarding sex offense characteristics was obtained primarily from psychological reports contained within the subjects' files at JSC (summary statistics are presented in Table 3). As mentioned previously, all child molester subjects were convicted of either sexual assault or gross indecency. Due to the nonspecific nature of the charges (i.e., all sexual offenses assumed under the rubric of 'sexual assault') there was no objective classification of offense type (e.g., rape vs. fondling). As a result, many offenses were reported as involving more than one offense behavior such as both fondling and oral/genital contact. Of those offenses reported in the files, 14 (77%) involved fondling (fondling in this case also consists of mutual genital contact without the intention of penetration), 2 (11%) involved attempted rape, 2 (11%) involved rape, and 8 (44%) involved oral/genital contact.

In all, 9 of the 18 offenses involved two or more victims. None of the convictions involved more than three victims. Ten of the offenses or 56% involved female victims only. Two involved male victims only, and 6 offenses involved victims of both sexes. Of the 18 offense convictions, there were 30 victims in

total, 21 of which were female and 9 male. The mean age of the female victims was 6.68 years with a range of 3 to 11. The mean age for male victims was 6.9 years with a range of 3 to 9.

Information regarding the relationship of the victim to the offender was also obtained for the present study. Of the victims, 5 (17%) were sisters (or half sisters) of the offender, 4 (13%) were brothers (or half brothers), 2 (7%) were step sisters, 2 (7%) were step brothers, 8 (27%) were other relatives (e.g., cousins, nieces, etc.), 5 (17%) were friends or neighbours, and 4 (13%) were strangers.

Of the 18 offenses, 5 (28%) involved the use of some form of violence, 8 offenses (44%) did not involve violence. For the remaining 5 offenses it was unknown whether violence was used or not. For the present study, the operational definition of violence consisted of the use or the threat of using physical force. The use of violence was classified according to explicit information contained within the subjects' files. If no mention was made regarding how the subject went about coercing their victims into the sexual acts then the experimenter indicated 'unknown'. Methods of coercion that involved threats such as telling the victim that they would get into trouble if they told anybody about the offense were considered to be of a nonviolent nature.

Information regarding previous sexual abuse was obtained only for the child molester group. Of the 18 child molesters, 9

Table 3

Child Molester and Sex Offense Characteristics

	Number	Percentage
Number of offenders	18	
Type of sexual assault		
Rape	2	(11%) ¹
Attempted rape	2	(11%)
Fondling	14	(77%)
Fellatic/oral/other	8	(44%)
Victim/offender relationship		
sister	5	(17%) ²
brother	4	(13%)
step sister	2	(7%)
step brother	2	(7%)
other relative	8	(27%)
friend/neighbour	5	(17%)
stranger	4	(13%)
Sex of victim		
male	9	(30%)
female	21	(70%)
Age of victim		
mean age	6.74 years	
range	3-11 years	
Use of violence		
yes	5	(28%)
no	8	(44%)
unknown	5	(28%)
Previous sexual abuse		
yes	9	(50%)
none	6	(33%)
unknown	3	(17%)

¹ percentage adds to over 100% because some sexual assaults involved more than one behavior.

² proportional to the total number of victims.

had either been sexually abused or strongly suspected of being sexually abused, 6 had either denied or had not been suspected of being sexually abused and for 3 subjects there was no information regarding sexual abuse. Again, explicit information regarding sexual abuse was sought when reading through the subjects' files. If no information was given on this topic it was marked as 'unknown'.

Multivariate Analyses

Multivariate analyses were included in order to determine if the child molester group differed from the other nonmolesting groups on a linear combination of the social, heterosocial and general self-efficacy variables.

An omnibus MANOVA was conducted and was significant with $F(3,53) = 3.52, p < .01$. This test indicates that there are significant mean differences between the groups on a linear combination of the dependent measures which maximally differentiate the groups. A preplanned contrast comparing the child molester group with a combination of the two nonmolesting groups was also performed. Using Hotelling's T^2 to test the contrast, a significant difference, $F(3,53) = 3.75, p < .02$ was found, with child molesters scoring lower than the two other groups combined. Subsequent pairwise comparisons indicate that on this particular combination of dependent measures child molesters scored significantly lower than the nonsex offending

comparison group, $F(3,53) = 5.32$, $p < .01$, and that the nonoffenders scored significantly lower than the nonsex offenders, $F(3,53) = 3.47$, $p < .05$, while the child molesters did not significantly differ from the nonoffender comparison group.

In addition to the MANOVA, a discriminant analysis was also conducted. This analysis yielded two discriminant functions or canonical variates with eigen values of 0.31343 and 0.09485 respectively. Bartlett's (1947) statistic V and its χ^2 approximation was used to test the significance of the eigenvalues and to determine how many of the discriminant functions should be retained. For the first discriminant function the approximate $\chi^2 = 14.722$, which was significant at the 0.05 significance level. The second discriminant function tested as insignificant indicating that it did not sufficiently discriminate between the two groups and was thus excluded from further analyses. Thus, further multivariate analyses considered only the first discriminant function.

The coefficients for the first canonical variable with the dependent measures were -0.03375 for the general self-efficacy measure, 0.07880 for the social self-efficacy measure, and -0.06080 for the heterosocial self-efficacy measure. The canonical variable evaluated at group means was 0.59501 for the child molesters, -0.71491 for the nonsex offenders, and 0.17940 for the nonoffender comparison group.

In order to assist in interpreting the above analyses, correlations between the dependent measures and the canonical variable were conducted. This yielded a correlation of -0.2291 with the general self-efficacy measure, -0.3430 with the social self-efficacy measure, and -0.9589 with the heterosocial self-efficacy measure. This correlation matrix indicates that the heterosocial self-efficacy measure makes up the vast majority of the first canonical variate accounting for approximately 92% of the variance. The remaining two dependent measures account for a much smaller portion of what is included in the first discriminant function with the social self-efficacy measure involved in approximately 12% of the variance, and the general self-efficacy measure 5%.

Tests of the Hypotheses and Post Hoc Analyses

The formal hypotheses of this study specifically concern the social and heterosocial self-efficacy measures. These involve preplanned contrasts comparing the child molester group with a combination of the two nonmolesting groups on both the Social Self-efficacy Scale and the Survey of Heterosocial Interactions.

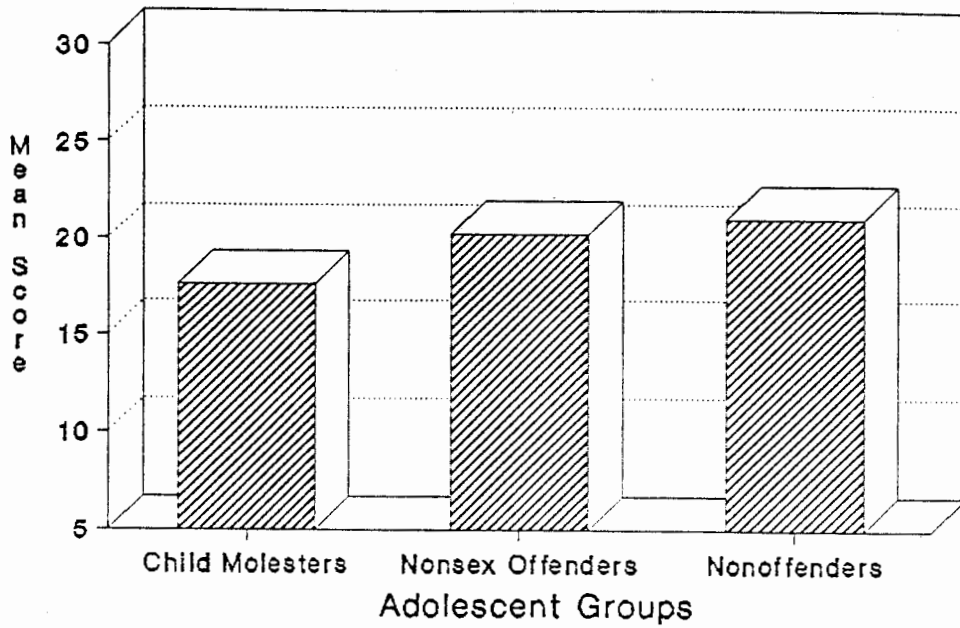
On the Social Self-efficacy Scale, child molester group had a mean score of 17.61 and a standard deviation of 4.37; the nonsex offender group had a mean score of 20.20 and a standard deviation of 4.03; the nonoffender group had a mean score of 21.00 and a standard deviation 5.26 (see Figure 1). The

comparison of the child molesters with the two nonmolesting groups on social self-efficacy yielded a significant result $t(55) = -2.2936$, $p < 0.03$, with child molesters scoring significantly lower.

Subsequent post hoc comparisons were conducted in order to better interpret the results. These were done using Tukey's test (or Honestly Significant Difference) in order that a familywise error rate of 0.05 be maintained. Using this test, no significant differences were found between the various pairs of means. Only one comparison (between the child molesters and the nonoffenders) approached significance with $t(55) = -2.2736$, $p = 0.0270$ (uncorrected alpha).

On the Survey of Heterosocial Interactions, the child molester group had a mean score of 82.22 and a standard deviation of 17.55; the nonsex offending group had a mean score of 105.10 and a standard deviation of 17.89; and the nonoffending group had a mean score of 90.40 and a standard deviation of 19.16 (see Figure 2). To test the hypothesis that child molesters will score lower than the 2 nonmolesting groups on heterosocial self-efficacy, a preplanned contrast was conducted comparing the child molester group with a combination of the nonsex offending and the nonoffending groups. This contrast yielded a significant result $t(55) = -3.003$, $p < 0.01$, with the child molester group scoring significantly lower.

Figure 1.
Social Self-efficacy Scores



Again, post hoc pairwise comparisons using Tukey's test indicated that the child molesters did score significantly lower than the offender comparison group $t(55) = -3.8617, p < 0.05$, while the child molester group did not score significantly lower than the nonoffending group. In addition, the difference between the nonsex offending group and the nonoffending group did not reach significance with Tukey's test. With uncorrected alpha levels, however, this comparison did approach statistical significance $t(55) = 2.55, p < 0.02$, with the offender group scoring higher than the nonoffender group.

On the general self-efficacy measure, the child molesters had a mean of 56.06 and a standard deviation of 8.84; the nonsex offenders had a mean of 59.70 and a standard deviation of 8.41; the nonoffenders had a mean score of 61.55 and a standard deviation of 9.99 (see figure 3). Because no hypotheses were offered concerning the general self-efficacy measure, no preplanned comparisons were conducted. Post hoc analyses were conducted to investigate possible significant differences in levels of general self-efficacy between the three groups. These analyses consisted of pairwise comparisons and contrasts similar to those conducted with the other measures using Tukey's test to control for family wise error. None of these tests approached significance.

Figure 2.
Heterosocial Self-efficacy Scores

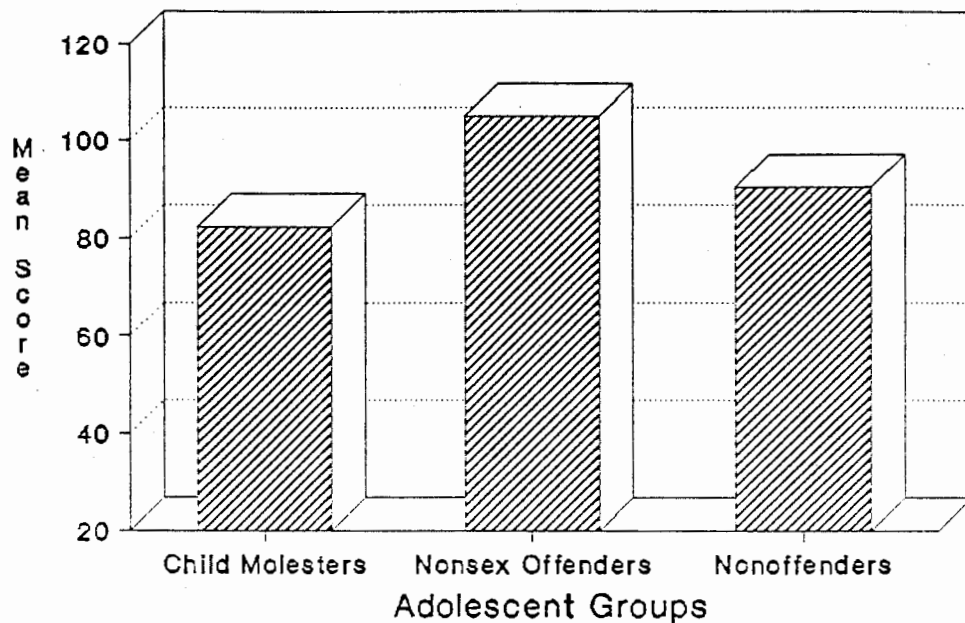
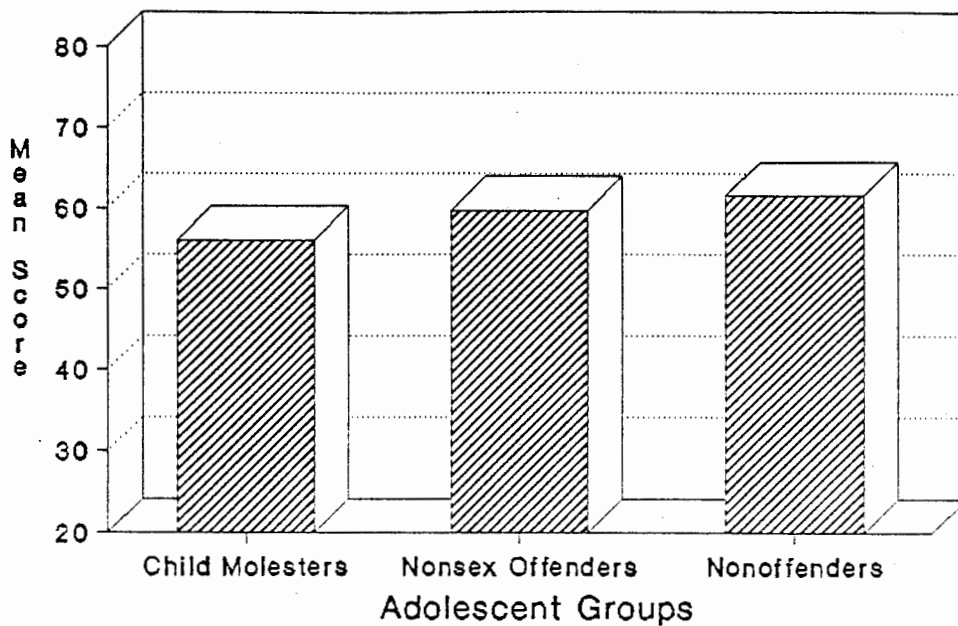


Figure 3.
General Self-efficacy Scores



DISCUSSION

Social Self-efficacy

Results of this study support the hypothesis concerning social self-efficacy in adolescent child molesters. As predicted by the formal hypotheses, when the child molesters were compared with the nonmolesting adolescents (the nonsex offending and nonoffending subjects considered together), the child molesters did score significantly lower on the Social Self-efficacy Scale.

A more detailed analyses yielded somewhat contradictory results which in turn may limit the conclusions we are able to reach. Post hoc pairwise comparisons with the social self-efficacy measure indicated that there were no significant differences when the child molester group was compared with the two nonmolesting groups individually. These somewhat contradictory findings can be explained in part by the familywise error adjustments made for the post hoc comparisons. Here, the more strict criteria for achieving significant results eliminate those comparisons that would have been significant if such adjustments had not been made. Even in disregarding these adjustments, however, only one comparison reaches significance; child molesters scoring lower than the nonoffending adolescents. Thus, even if this particular comparison was considered to be significant, the fact that the comparison between the child molesters and the offender comparison group did not approach

significance suggests that qualifications will be have to be made when discussing the original hypothesis.

Perhaps low social self-efficacy scores are more a function of being a juvenile delinquent as opposed to being a child molester. Indeed this does seem probable since both offending groups have experienced difficulties with authorities and a high proportion of offenders come from socially unstable homes. In looking at this possibility within the present study, post hoc analyses found that while there was a trend with the two offender groups scoring lower than the nonoffender group, this difference did not reach statistical significance.

Overall then, it appears that there is some basis for claiming that child molesters as a group have lower social self-efficacy judgments than nonoffender adolescents. There is less basis for concluding that adolescent child molesters differ from other nonsex offending adolescents. It appears that if differences do exist, they are minimal. Clearly, more research is needed in order to answer more definitively whether low social self-efficacy expectations are characteristic of adolescent child molesters.

Heterosocial Self-efficacy

Results with the heterosocial self-efficacy measure supported the formal hypothesis that adolescent child molesters are lower than nonmolesting adolescents on heterosocial

self-efficacy. While a comparison between the child molesters and the two nonmolesting groups considered together showed that the child molesters scored significantly lower, separate pairwise comparisons found that the child molesters scored significantly lower than only the offender comparison group. In contrast, the difference between the child molesters and the nonoffending adolescents did not approach significance. Subsequent analyses discovered that the nonoffender group also scored significantly lower than the nonsex offending adolescents on heterosocial self-efficacy at the uncorrected familywise alpha level.

Similar findings were also achieved with the multivariate analyses. Here, as well, the multivariate comparison found that while the child molesters significantly differed from the two nonmolester groups, when they were considered as one, on a maximally discriminating combination of the dependent variables, they only differed from the nonsex offenders on separate pairwise contrasts. The similarity of findings between the multivariate analyses and the univariate analyses on the heterosocial self-efficacy measure are mainly due to the fact that the canonical variate which maximally discriminated between the groups consisted largely of the heterosocial measure. This finding also attests to the strength or power of the heterosocial measure in comparison to the social self-efficacy measure.

Regardless, the findings with the heterosocial self-efficacy variable are particularly surprising since if any difference would be expected it would be that the offender comparison group would score lower than the nonoffending group. One reason for suspecting this comes from studies with adult populations. Segal and Marshall (1985) and Stermac and Quinsey (1986) have compared groups of adult offenders and nonoffenders and have found that nonoffenders have tended to score significantly higher than nonsex offenders on measures of social competence including self-efficacy. This is particularly so when the nonoffender groups have come from higher socioeconomic backgrounds. In the present study, the nonoffender group came predominantly from a middle to upper socioeconomic background while both offender groups came from a lower to middle socioeconomic background which is typical of these types of offenders. Of course, this study differs from others which have addressed these issues in that the subjects are adolescents as opposed to adults. It may be that a different dynamic is at work in the younger adolescent.

In attempting to explain these results, it may be that the two offender groups presented themselves in a more socially desirable fashion on the SHI measure. Both of the offender groups in the present study scored higher than expected on the heterosocial measure. These expectations were based exclusively on results with similar groups of adult offenders, where both groups scored somewhat lower on this same measure. While this

does not necessarily imply that the adolescent offenders were misrepresenting themselves in the present study, it may be that instead of answering in a more truthful and insightful manner, the offenders answered the scale items with somewhat of a false bravado. Unfortunately, no social desirability checks were included in the present study and as a result, it is impossible to verify this interpretation. One study which has addressed social desirability among adult sex offenders has found that they did not differ from normal scores on a social desirability scale (Alexander & Johnson, 1980). This study did not, however, include nonsex offenders in their analysis. Obviously, future research will need to address the possible effects of social desirability among adolescent offenders.

Apart from these explanations, the dilemma for the researcher is in deciding which comparison is more meaningful. If one were to emphasize the comparison between the child molesters and the nonoffenders, the conclusions reached would have serious repercussions. In this case one would be forced to conclude that adolescent child molesters do not differ greatly from normal nonoffending adolescents based on the findings with this particular measure. This finding suggests that the clinical impressions of those working with these offenders are inaccurate. Perhaps these impressions have been based more on preconceived notions of child molester characteristics or on insufficient knowledge of normal adolescent behavior in social situations. At this point, however, there is insufficient

evidence to make such statements.

Perhaps the more meaningful comparison for this discussion is between the two offender groups. In looking at the make up of the three groups it is apparent that the two offender groups more closely resemble one another on variables other than the type of offense. Outside of having offense histories both groups share similar socioeconomic backgrounds, disturbed family histories and education levels. Analyses did in fact show that both offender groups differed from the nonoffender group on grade level. It may be that educational level did affect the performance on the heterosocial self-efficacy measure. One important variable on which the groups might differ is in the number of previous convictions. Here, virtually all nonsex offenders have a previous offense history, while the majority of the child molesters have no offense history prior to the present sexual assault charge. Apart from this difference, these two groups do appear to be more alike than the child molesters and nonoffenders. Thus, it may be more logical to focus on the differences between the two offender groups.

Based on this comparison, it is clear that the child molesters are lower on heterosocial self-efficacy as assessed by the SHI. This being the case, there does appear to be confirmation of the commonly held beliefs of clinicians working with adolescent child molesters that the molesters do appear to lack confidence in heterosocial situations. Taking into consideration the findings with the social self-efficacy measure

then, it appears that the adolescent child molester is particularly lacking in heterosocial as opposed to social self-efficacy.

General Self-efficacy

Analyses on the general self-efficacy measure found no significant differences between the various groups. The child molesters did score lowest among all three groups but again these differences did not approach significance. This analysis helps to clarify, at least to a degree, some of the conclusions we are able to make from this study. For one, if self-efficacy is related to the etiology of the offense behavior, it appears that it is only specific social and/or heterosocial self-efficacy expectations which are involved. In contrast, levels of general nonspecific self-efficacy appear to be unrelated to the way in which these three groups differ.

Child Molester Characteristics

Apart from the specific tests performed on the measures themselves, a great deal of additional data were collected which might also be used as a means of better understanding the adolescent child molester. Based on the descriptive data, we are able to deduce that the typical adolescent child molester in this study was a caucasian male between the ages of 16 and 17 years. He has a grade 8 education. He typically has no

convictions prior to the present sexual assault charge. He is from a broken home, is living with his mother, and has been sexually abused as a child. The sexual assault itself was generally a nonviolent act although it did involve some form of coercion. The assault was incestuous in general with the victim being either a sister or cousin. The victim's age is probably around 6 or 7 years. The type of assault would likely involve fondling of some sort and perhaps some form of oral/genital contact. While this is a typical profile of the sex offenders in this sample, the majority of offenders did not fit all of these descriptions.

One interesting finding from the present study concerns the high proportion of child molesters who were sexually victimized as children. Based on file data, 50% of the present child molester sample had either admitted to being sexually abused or were highly suspected of being sexually abused as a child. The abuse in this case typically involved older brothers or relatives such as uncles or stepfathers. In comparing the present study with previous studies on sexual abuse rates among adolescent child molesters, it appears that the frequency of previous victimization is quite high in the present sample. Only one previous study has reported sexual abuse rates among adolescent sex offenders at 40% or higher (Longo, 1982). In that study, however, there were a number of rapists included in the sample and it is difficult to determine whether the child molester sample was different from the others in that study.

It may be that the higher rates reported in the present study are the result of more open and freer discussion about sexual abuse issues in our society at present. As a result, adolescents may feel less inhibited in talking about previous sexual abuse than they would have even seven or eight years ago. An additional reason might be that the present study included those who were suspected of being sexually abused into the sexual abuse category. This may have led to the higher than expected rate that was found in the present study.

Unfortunately, no information regarding sexual abuse histories were obtained from the comparison groups in this study. Thus, comparisons between these different groups cannot be made. While the incidence rates among the child molesters is obviously higher than in the general male population (Finkelhor, 1979), a comparison with the nonsex offenders would be of interest. Even if such a comparison were to find higher rates among the child molesters, it would be faulty to infer that the prior victimization resulted in the present offenses.

An informal comparison contrasting those with a sexual abuse history and those without a history indicates that there may be a relationship between heterosocial self-efficacy and prior sexual abuse among the adolescent child molesters. As a group, the molesters with a sexual abuse history did score lower on the heterosocial measure. Unfortunately, the number of subjects was insufficient to perform a meaningful analysis. Nevertheless, this trend may have some etiological significance. Future

research may help in answering this question.

Another interesting finding concerns the family environment of the adolescent child molesters. Of this sample, only 17% were living with both natural parents at the time of arrest. In addition, information contained within the offenders' files indicate that many had a history of severe neglect and emotional trauma as children. In comparing the family history with the nonsex offending group, however, it is clear that broken families are not unique to the child molester sample (65% of the offender comparison group were not living with both natural parents prior to arrest). Nevertheless, it may be that a traumatic family history coupled with other traumatic experiences may have etiological significance in relation to the molesting behavior.

Critique

In looking at the present study, it is apparent that there are several problems with the design which may have affected the results. Foremost among the design problems is the comparability of the samples. More emphasis could have been placed on matching the subject groups on certain variables. These include matching the nonoffender group with the two offender groups on socioeconomic status. For the present study, the majority of the nonoffender subjects came from wealthier neighbourhoods and had parents with well paying, higher status jobs. Future research

could use an objective criteria for assessing socioeconomic status and either match the nonoffending subjects on this variable or include an additional group of nonoffenders which do resemble the offenders on social status.

Control of variables such as intelligence and education level might also be valuable. Previous research has noted that adolescent child molesters tend to score lower than offender and nonoffender comparison groups on intelligence tests with more child molesters scoring in the borderline intelligence range (Groth, 1977). It may be that such differences will also affect performance on questionnaires such as those included in the present study. For the present study, there was no attempt to control for this variable among the three groups.

Among the two offender samples more care could have been taken in matching them on variables such as number of convictions, time spent in the criminal justice system, and place of dwelling. It is unclear whether these variables would affect the scores on self-efficacy measures. Nevertheless, matching subjects as close as possible on as many variables as possible will assist in making stronger conclusions about the results.

Outside of matching groups on important variables, a number of other factors may have affected the results. One such factor concerns social desirability, particularly among the offender groups. Future research could address this issue simply by

including a social desirability measure. An additional factor centres around the treatment programs that the child molesters were involved in. These programs were designed in part to assist the child molesters in establishing better social skills. This in turn may have helped to increase social self-efficacy. Fortunately, the majority of subjects participated in the present study when they had just begun their treatment program and had yet to receive any social skills training. Despite this, it would be preferable to test the group prior to receiving any treatment.

An additional problem with the present study concerns the use of measures that have not been normed or tested on adolescent populations. Thus, it is difficult to ascertain whether the measures used here are tapping into the same constructs as they are with adult populations. Due to the specific and overt nature of the questions it is likely that these measures are dealing with the constructs they were designed to measure. Nevertheless, what is needed is test validation research to determine if these measures are truly appropriate for these populations.

While the results of this study may be informative to researchers and/or clinicians working with adolescent child molesters, caution must be taken when interpreting the role that self-efficacy plays in determining abnormal sexual behavior such as child molestation. This is due in part to the nature of the design in the present study. Because the present study does not

involve the systematic manipulation of independent variables among equivalent groups, it is impossible to conclude with any certainty that low levels of social or heterosocial self-efficacy play any sort of causal role in the child molesting behavior. Causality cannot be inferred from a correlational design such as the one used in the present study. It may be that other factors are related to lower self-efficacy ratings. One interpretation is that the findings may be the result of being caught and convicted of a sexual assault. This in turn might lower one's esteem and confidence. This possibility has been suggested in explaining the results of a similar study with an adult population. Here, it was suggested that lower ratings on social competence measures were a reflection of the lower status that child molesters have in the criminal justice system (Segal & Marshall, 1985). While this may be so with an adult population, it may be less so with adolescent child molesters as many of the adolescent offenders have spent much less time in the criminal justice system than adult offenders.

Finally, qualifications must be made when generalizing the results of the present study to other samples of adolescent child molesters. In particular, care must be taken when generalizing to child molesters who have eluded the criminal justice system. Arrest statistics have been shown to clearly underestimate the prevalence of sex offenses. This is particularly so for adolescent child molesters (Davis &

Leitenberg, 1987). It may be that those adolescents who have avoided being caught or convicted of child sexual abuse possess higher levels of social or heterosocial self-efficacy and social competence than those who have been convicted. Indeed, Howells (1981) has suggested that the more socially skilled molesters may go undetected. Thus, findings of the present study are generalizable only to similar samples of adolescent child molesters.

Of course, it is dangerous to generalize the present findings even to other child molesters within the criminal justice system. Not all child molesters can be expected to have low levels of social or heterosocial self-efficacy. Even within the sample of this study, a high proportion of child molesters scored above the overall mean on both the social self-efficacy measure (28% of the child molesters scored above the mean) and the heterosocial self-efficacy measure (28%). At this point, it is unclear what factors or variables distinguish those who scored high versus those who scored low on these measures. This is one area that future research could address. Nevertheless, assuming that the subjects' scores are true reflections of actual self-efficacy levels, than it cannot be said that all adolescent child molesters are low in these particular levels of self-efficacy. What is required at the clinical level are individual assessments of self-efficacy. In this way, specific treatments can be designed to meet the needs of each offender.

Treatment Implications

Much of the interest in the self-efficacy construct has been in its applications to treatment. In turn, much of the research concerning self-efficacy has been in its utility with regard to the treatment of various psychological problems. One assumption of self-efficacy theory is that one is limited or constricted in certain areas of behavior as a result of self-doubt or low self-efficacy. This being the case, if one can raise one's efficacy expectations, the abnormal or constricting behavior patterns should be alleviated or changed to a more productive and less harmful level. With regard to the child molesting behavior in adolescents, if there are low levels of social or heterosocial efficacy expectations, it may be that by raising their efficacy levels, they will feel more capable of establishing peer and heterosocial peer relationships. Hopefully then, the increases in self-efficacy will lead to an abandonment of the previous molesting behavior patterns in favor of adopting more socially appropriate means of getting their emotional and intimacy needs met.

With regard to adolescent child molesters, a treatment program designed to increase social and heterosocial self-efficacy might involve a combination of modelling, role playing, and constructive feedback from the therapist concerning the appropriate social behavior. Indeed, similar treatment programs are provided for adult sex offenders (Abel, Mittleman,

& Becker, 1985). Here, the therapist can model appropriate examples of social and heterosocial skills and behaviors through role playing. The offender then can model the social skills from the therapist. Such a program might also involve using female confederates in order that the offenders might practice their skills in as realistic a situation as possible. Eventually, more complicated social behavior may be learned. Hopefully, this will instill the offender with higher levels of self-efficacy thereby leading to more appropriate social and heterosocial behavior.

Whether such a program will actually lead to successful outcomes remains open to question. While research has demonstrated the effectiveness of treatment programs specifically designed to increase self-efficacy with behaviors such as agoraphobia (Bandura & Adams, 1977), very little research has been done in the area of social or heterosocial skills. Barrios (1983) has provided limited support for treatments designed to produce increases in heterosocial self-efficacy. Unfortunately, no research has addressed whether this applies to adolescent sex offenders.

Future Research

The present study has obtained some support for the hypothesis that adolescent child molesters possess lower social and heterosocial self-efficacy expectations. Obviously, more research is needed before we can make any definitive conclusions

regarding the relationship between self-efficacy and child molestation. In addition, there are many questions left unanswered by the present research.

One of the questions that still need to be addressed is whether there are differences between adolescent child molesters and other types of adolescent sex offenders such as rapists or exhibitionists on measures of social or heterosocial self-efficacy. Studies with adult sex offenders have found that child molesters do score significantly lower than rapists on measures of self-efficacy (Segal & Marshall, 1985). Awad, Saunders, and Levene (1984) have suggested that adolescent child molesters differ from rapists in that they have fewer and poorer peer relationships. It is possible that these differences may relate to self-efficacy judgments as well. If there are differences, it could have important implications for the development of specialized treatment programs for the various subtypes of sex offenders. Research in the future may help the clinician in developing alternative approaches in the treatment of the various sex offender types.

A second important question that needs to be addressed is whether there are differences between subtypes of child molesters. Even within the present study, the child molester sample was quite heterogeneous with molesters differing on a number of variables. These variables may in turn be differentially related to self-efficacy or to the etiology of their offense behaviors. Examples of some issues that should be

should be addressed includes whether offenders who molest female children differ from those who molest male children and whether violent offenders differ from nonviolent molesters. Clinicians working in the field have suggested that there are possible differences between offenders who assault male children and those who assault female children (Saunders et al., 1986). Likewise, clinical experience has suggested that adolescents who molest male children do have a higher rate of being sexually victimized as children than other child molesting adolescents (Davis & Leitenberg, 1987). In the present study, six of the nine offenders who molested at least one male had been sexually abused as a child. In comparison, three of the nine offenders who molested only female children had been abused. Whether this has any etiological significance or whether these groups differ on variables such as self-efficacy is unclear. Based on informal analyses of the data in the present study, the molesters of male children as a group did score lower than the other molesters on both social and heterosocial self-efficacy. These differences did, however, appear minimal.

Similarly, it would be advantageous to know if incestuous molesters differ from nonincestuous molesters on self-efficacy or if there is a relationship between age of the molester and self-efficacy. With regard to the age variable, it may be that the age of the offender is differentially related to the levels of self-efficacy in certain domains of behavior. Thus, the younger offender might feel lower in heterosocial self-efficacy

in general due to a lack of experience with the opposite sex. Finally, it may be that the one time offender differs from the multiple offender on social or heterosocial self-efficacy. Here, the one time offense may be a reflection of sexual experimentation whereas the multiple offender may feel much more socially inadequate and as a result will constantly seek out children for sexual intimacy. Unfortunately, these issues were not formerly dealt with in the present study due to limitations of subject number. Based on informal assessment of the data, there appears to be no relationship between self-efficacy and these additional variables. Nevertheless, these variables may have importance in terms of differentiating between types of offenders and the etiology of the offense behaviors and should be addressed in future research.

A third area that needs attention is in whether there are actual social skills deficits in adolescent child molesters. It may be that the low self-efficacy judgments are independent of actual social skills and that the adolescent molesters possess adequate skills in interacting with peers. This has been shown in a sample of adult child molesters (Segal & Marshall, 1985). If this is the case for adolescents, it could have ramifications for treatment program planning.

Related to the assessment of social skills are the self-efficacy assessments themselves. The present study used self-report questionnaires to measure levels of social and heterosocial self-efficacy. The items on these measures were not

tied to immediate situations. Typical self-efficacy assessments, however, have involved microanalyses whereby both the performance expectations and actual performance attainments were assessed. Using this model, the assessment of heterosocial self-efficacy might involve asking the subject about how they would perform certain tasks such as starting a conversation and then having the subject actually attempt to start a conversation with a female confederate. Having the subject rate their efficacy levels prior to actual interactions might also result in more accurate or honest self-efficacy ratings. This along with more general measures such as the SES and the SHI might lead to stronger results and more definitive conclusions.

Conclusions

Clinicians who have worked with adolescent child molesters have noted that they have tended to be social isolates or loners who have feelings of male inadequacy and who possess little skill in establishing close or meaningful peer relationships (Fehrenbach et al., 1986; Groth, 1977; Saunders et al., 1986). One way of conceptualizing these feelings of male inadequacy is to consider them as reflecting low self-efficacy perceptions in the area of both social and heterosocial functioning. The present study has attempted to empirically validate the view that adolescent child molesters have low social and heterosocial self-efficacy expectations by comparing a group of adolescent child molesters with groups of nonsex offending and nonoffending

adolescent on a number of self-efficacy measures.

Results of this study suggest that adolescent child molesters are lower in levels of social and heterosocial self-efficacy. The evidence for making this statement, however, is not conclusive. Thus, while the child molester group scored lower than the other two groups on measures of general, social and heterosocial self-efficacy, these differences only occasionally reached significance. In addition, the patterns of group differences differed according to the type of measure. On the heterosocial self-efficacy measure, the child molesters scored significantly lower than the offender comparison group while they did not significantly differ from the normals. On the social self-efficacy scale, however, the pattern was reversed in that the child molesters and the nonsex offenders did not differ, while the difference between the child molesters and the normals approached significance. These results suggest a complex relationship between the various self-efficacy domains and the molesting behavior.

Obviously, further research is needed in order that we may better understand the role that self-efficacy plays in the adolescent child molester. The present study has left many questions unanswered in addition to raising many additional questions. Even if it were to conclusively demonstrate that self-efficacy was distinctly related to child molestation, much more research would still be needed. Self-efficacy is only one of a host of other variables that may be linked to child

molestation. To presume that a single variable accounts for this behavior is naive. Given the mixed findings from the present study we are not likely to find any great predictive or explanatory power based on a univariate model. Feelings of social or heterosocial inadequacy simply do not reliably discriminate between adolescent child molesters and nonmolesters. The molesting behaviors are complex and involve a complex and multidetermined explanation (Finkelhor, 1984; Finkelhor & Araji, 1986). The value of the present study, however, is in providing clinicians and researchers with a small piece of information from which further treatment planning strategies and research projects may be assisted.

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APPENDIX A

General Information Questionnaire

Instructions: This is an inventory which asks questions regarding certain sexual behaviors. Please answer each question as truthfully as possible. If a statement is true, as applied to you, indicate this by printing the letter T in the space next to the statement. Likewise, if the statement is false, indicate this by printing the letter F. Answer all of the questions. If you are bothered by the nature of the question and do not want to answer it, go on to the next question.

Please indicate your age _____

What is the last grade you have completed at school _____

What is the occupation of your father _____

What is the occupation of your mother _____

- ___ 1. I have been accused of rape or attempted rape.
- ___ 2. I have been accused of a sex offense against a child.
- ___ 3. I am strictly heterosexual (only interested in female sex partners).
- ___ 4. In the last year, I have molested a child younger than 10 years of age.
- ___ 5. In the last year, I have raped, sexually assaulted or attempted to sexually assault someone
- ___ 6. I have been convicted of a criminal offense.

SHI

1. You want to call a girl your age for a date. This is the first time you are calling her up as you only know her slightly. When you get ready to make the call, your friend comes into the room, sits down, and begins to read a magazine. In this situation you would

1	2	3	4	5	6	7
be unable to			be able to			be able to
call in every			call in some			call in every
case			cases			case

2. You are at a dance. You see a very attractive girl who you do not know. She is standing alone and you would like to dance with her. You would

1	2	3	4	5	6	7
be unable to			be able to			be able to
ask in every			ask in some			ask in every
case			cases			case

3. You are at a party and you see two girls your age talking. You do not know these girls but you would like to know one of them better. In this situation you would

1	2	3	4	5	6	7
be unable to			be able to			be able to start
start a			start a conversation			a conversation
conversation			in some cases			in every case

4. You are at a center where there is also dancing. You see a couple of girls sitting in a booth. One, whom you do not know, is talking with a fellow who is standing by the booth. These two go over to dance leaving the other girl sitting alone. You have seen this girl around, but do not really know her. You would like to go over and talk with her (but you wouldn't like to dance). In this situation you would

1	2	3	4	5	6	7
be unable to			be able to go			be able to go
go over and			over and talk to her			over and talk to
talk to her			in some cases			her in every case

5. On a work break at your job you see a girl who also works there who is about your age. You would like to talk to her, but you do not know her. You would

1	2	3	4	5	6	7
be unable to			be able to			be able to
talk to her in			talk to her in			talk to her in
every case			some cases			every case

6. You are on a crowded bus. A girl you know only slightly is sitting in front of you. You would like to talk to her but you notice that the fellow sitting next to her is watching you. You would

1	2	3	4	5	6	7
be unable to			be able to			be able to
talk to her in			talk to her in			talk to her in
every case			some cases			every case

7. You are at a dance. You see an attractive girl whom you do not know, standing in a group of four girls. You would like to dance. In this situation you would

1	2	3	4	5	6	7
be unable to			be able to			be able to
ask in every			ask in some			ask in every
case			cases			case

8. You are at a drug store counter eating lunch. A girl about your age who you do not know sits down beside you. You would like to talk to her. After her meal comes she asks you to pass the sugar. In this situation you would pass the sugar

1	2	3	4	5	6	7
but be unable			and in some cases			be able to
to start a			be able to start a			start a
conversation			conversation with her			conversation

9. A friend of yours is going out with his girlfriend this weekend. He wants you to come along and gives you the name and phone number of a girl he says would be a good date. You are not doing anything this weekend. In this situation you would

1	2	3	4	5	6	7
be unable to			be able to			be able to
call in every			call in some			call in every
case			cases			case

10. You are in the library. You decide to take a break, and as you walk down the hall you see a girl whom you know only casually. She is sitting at a table and appears to be studying. You decide that you would like to ask her to get a coke with you. In this situation you would

1	2	3	4	5	6	7
be unable to			be able to			be able to
ask in every			ask in some			ask in every
case			cases			case

11. You want to call a girl for a date. You find this girl attractive but you do not know her. You would

1	2	3	4	5	6	7
be unable to			be able to			be able to
call in every			call in some			call in every
case			cases			case

12. You are taking classes at a high school. After one of your classes you see a girl whom you know. You would like to talk to her; however, she is talking with a couple of girls you do not know. You would

1	2	3	4	5	6	7
be unable to			be able to			be able to
talk to her in			talk to her in			talk to her in
every case			some cases			every case

13. You are at a banquet/dinner where you have been assigned to a particular seat. On one side of you there is a girl your age who you do not know, on the other side is a guy your age you do not know. In this situation you would

1	2	3	4	5	6	7
be unable to start a conversation with the girl and talk only with the guy		be able to start a conversation with the girl in some cases but talk mostly with the guy			be able to start a conversation in every case and be able to talk as freely with the girl as with the guy	

14. You are in the lobby of a large apartment complex waiting for a friend. As you are waiting for him to come down, a girl you know well walks by with another girl whom you have never seen before. The girl you know says hello and begins to talk to you. Suddenly she remembers that she left something in her room. Just before she leaves you she tells you the other girl's name. In this situation you would

1	2	3	4	5	6	7
find it very difficult to start a conversation with the other girl			find it only slightly difficult			find it easy to start and continue a conversation

15. You are at a party at a friend's place. You see a girl who has come alone. You don't know her, but you would like to talk to her. In this situation you would

1	2	3	4	5	6	7
be unable to go over and talk to her			be able to go over and talk to her in some cases			be able to go over and talk to her in every case

16. You are walking to your mailbox in the large apartment building where you live. When you get there you notice that two girls are putting their names on the mailbox of the vacant apartment beneath yours. In this situation you would

1	2	3	4	5	6	7
be unable to start a conversation			be able to start a conversation in some cases			be able to start a conversation in every case

17. You are at a record store and see a girl that you once were introduced to. That was several months ago and now you have forgotten her name. You would like to talk to her. In this situation you would

- | | | | | | | |
|--------------|---|----------------------|---------------|---|------------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| be unable to | | | be able to | | be able to start | |
| start a | | start a conversation | in some cases | | a conversation | |
| conversation | | | | | in every case | |

18. You are at a school cafeteria where your friends eat lunch. You have gotten your meal and are now looking for a place to sit down. Unfortunately, there are no empty tables. At one table, however, there is a girl who is sitting alone. In this situation you would

- | | | | | | | |
|---------------|---|-------------------------|-------------------|---|----------------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| wait until | | | ask the girl | | ask the girl if | |
| another place | | if you could sit at the | table but not say | | you could sit at the | |
| was empty | | anything more to her | | | table and then start | |
| | | | | | a conversation | |

19. A couple of weeks ago you had a first date with a girl you now see walking on the street toward you. For some reason you haven't seen each other since then. You would like to talk to her but you aren't sure of what she thinks of you. In this situation you would

- | | | | | | | |
|-----------------|---|-------------------|---------------|---|-------------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| walk by without | | walk up to her | | | walk up to her | |
| saying anything | | and say something | in some cases | | and say something | |
| | | | | | in every case | |

20. Generally, in most social situations involving girls your own age who you don't know, you would

- | | | | | | | |
|--------------|---|----------------------|---------------|---|------------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| be unable to | | | be able to | | be able to start | |
| start a | | start a conversation | in some cases | | a conversation | |
| conversation | | | | | in every case | |

APPENDIX B

Simon Fraser University

INFORMATION SHEET FOR PARENTS OF MINORS

Title of Project: Social and Heterosocial Self-efficacy in Adolescent Populations.

The study being conducted is designed to look at certain aspects of personality such as self-confidence and perceived capabilities in areas of social life among various adolescent groups. This study involves completing three self-report pen/pencil measures that ask questions about beliefs in one's own abilities, about relations with others, and previous sexual behavior. All of the information obtained in this study is strictly confidential. Names will not be asked for and no identifying information will be placed on the measures themselves. Those who agree to participate in the study may withdraw from the study at any time. There will be no consequences for refusing to participate or from withdrawing from the study. Your cooperation will be greatly appreciated. If you have any further questions please feel free to contact me - Patrick Bartel - at 298-9935.

Informed Consent for Minors by Parent/Guardian to Participate
in a Research Experiment

As a parent of _____, I consent to the above-named participating in the study entitled: Social and Heterosocial Self-efficacy in Adolescent Populations. I understand the procedures used in this study and the consequences in taking part. I understand that the above-named may refuse to participate or may withdraw from the study at any time. I also understand that I may register any complaint I might have about the study with the chief researcher, Patrick Bartel, or with the Chairman of the Department of Psychology at Simon Fraser University, Roger Blackman. I may obtain a copy of the results of this study by contacting Patrick Bartel at the Department of Psychology, Simon Fraser University, Burnaby, B.C..

NAME (please print): _____

ADDRESS: _____

SIGNATURE: _____

WITNESS: _____

DATE: _____

Simon Fraser University

INFORMATION SHEET FOR SUBJECTS

Title of Project: Social and Heterosocial Self-efficacy in Adolescent Populations.

The present study you are being asked to participate in is designed to look at certain aspects of personality such as self-confidence and perceived capabilities in areas of social life including dating. This study involves completing three self-report pen/pencil measure that ask questions about your beliefs in your own abilities, about relations with others, and previous sexual behavior. All of the information obtained in this study is strictly confidential. No identifying information will be placed on the measures themselves. Those who agree to participate in the study may withdraw from the study at any time. There will be no consequences for refusing to participate or from withdrawing from the study.

Informed Consent by Subjects to Participate in a Research Experiment

Having been asked by Patrick Bartel of the Department of Psychology at Simon Fraser University to participate in a research project, I have read the procedures/directions stated in the page entitled: Social and heterosocial self-efficacy in adolescent populations. I understand the procedures used in this study and the personal risks to me in taking part. I understand that I may refuse to participate or may withdraw from the study at any time. I also understand that I may register any complaint I might have about the study with the chief researcher, Pat Bartel, or with the Chairman of the Department of Psychology at Simon Fraser University, Roger Blackman. If you are interested, copies of this study, upon its completion, may be obtained by contacting Patrick Bartel.

I agree to participate in this study by completing three self-report pen/pencil measures: the Survey of Heterosexual Interaction, the Self-efficacy Scale, and a self-report measure of sexuality as described in the document referred to above during the period: _____
at _____.

NAME (please print): _____

ADDRESS: _____

SIGNATURE: _____

WITNESS: _____

DATE: _____