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Social Information-Processing in Adolescent Girls: A Comparison of Sex Offending Girls, Delinquent Girls, and Girls From the Community

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SOCIAL INFORMATION-PROCESSNG IN ADOLESCENT GIRLS: A COMPARISON OF SEX OFFENDING GIRLS DELINQUENT GIRLS, AND GIRLS FROM THE COMMUNTY

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Various lines of evidence suggest that sex offenders exhibit "thinking errors" or cognitive distortions about their sexually offensive behaviors (e.g., blaming the victim). Numerous clinical reports have documented cognitive distortions among adolescent male sex offenders; empirical research consistently finds evidence of cognitive distortions among adult male sex offenders; sex offender treatments that focus on cognitive distortions as a primary target of treatment have been shown to be the most effective type of treatment for sexual offending; and research on general aggression in adolescent boys and girls consistently demonstrates that aggressive children tend to have distorted beliefs about their aggressive behavior. The present study investigates cognitive processing in adolescent girls with histories of sexually aggressive behaviors, using Dodge's social information-processing theory of aggression in adolescents as a framework. In accordance with Dodge's theory, it was predicted that sexually-aggressive girls would exhibit greater levels of cognitive distortions about sexually aggressive behaviors than girls with no histories of sexually aggressive behaviors. For this study, sexually-

aggressive girls were compared to both physically-aggressive and non-aggressive girls on several measures of beliefs about sexual aggression and physical aggression. Results regarding "thinking errors" were as follows. First, the sexually-aggressive girls were more likely than the physically-aggressive and non-aggressive girls to endorse statements reflecting the belief that a sex offender, as described in a vignette depicting offensive sexual behavior, was not responsible for the offensive sexual behavior. Second, the sexually-aggressive girls' perceptions relating to the victim (e.g., that the victim enjoyed the interaction) were moderated by both the degree of sexual contact and the type of victim response described in the vignettes, such that when the victim's response was clearly negative and the degree of sexual contact was more serious, the sexually-aggressive girls' responses reflected greater distorted beliefs about the victim than the non-aggressive and physically aggressive girls. Third, the sexually aggressive girls were more likely than the non-aggressive and physically aggressive girls to endorse distorted beliefs about general aggression. For instance, they were more likely to endorse the belief that victims do not suffer. Implications for theories of and treatments for sexually aggressive girls are discussed.

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CHAPTER I

INTRODUCTION

Over the past decade there has been a substantial increase in societal awareness of the magnitude of the problem of adolescent sexual offending. Estimates indicate that 20% of sex offenses are committed by adolescents (Kolko, Bukstein, & Brown, 1999). Along with increased awareness, there has been an increase in research on this problem. The vast majority of this research has focused on adolescent males, as they make up a greater proportion of this population than females (Federal Bureau of Investigation, 1998). Indeed, adolescent females make up only an estimated 5-7% of the known adolescent offender population (Kubik, Hecker, & Righthand, 2002b; Matsuda, Rasmussen, & Dibble, 1989). At the same time, there is mounting evidence that, although less prevalent than adolescent male sexual offending, adolescent female sexual offending poses a substantial societal problem which warrants attention by researchers.

The problem of adolescent female sexual offending, or at least identification of the problem, seems to be increasing. Arrest rates for sexual offenses and rapes committed by adolescent females appear to be increasing more rapidly than those for adolescent males: arrest rates for adolescent females increased by 39.9% and 14.8% for sexual offending and rape, respectively, between 1988 and 1997 as compared to increases of 9.4% and 6.3% for sexual offending and rape, respectively, for adolescent males during that same period (FBI, 1998). This increase in arrest rates for adolescent females may represent an actual increase in sexual offending by young females or, alternatively, a growing societal awareness of the problem and, in turn, a greater willingness to hold girls accountable for their sexually aggressive behavior. Either way, the increase in arrests of

adolescent females for rape and sexual offending indicates a need for research on this problem in order to facilitate greater understanding, prevention, and treatment of the problem.

Historically, research on female sexual aggression has been hampered by the prevailing view that females are largely incapable of causing physical harm to others (Anderson & Struckman-Johnson, 1998). Available evidence suggests, however, that the sex offenses committed by adolescent females can be as serious as those committed by males (Fehrenbach & Monastersky, 1988; Hunter, Goodwin, & Becker, 1993; Mathews, Hunter, & Vuz, 1997). In their comparison study of the typologies of male and female adolescent sex offenders, Mathews et al. (1997) found that the adolescent females' sex offenses were comparable in magnitude and frequency to those of their male counterparts. They also found that, similar to the adolescent male offenders, the female offenders committed offenses that involved fondling, oral sex, and vaginal intercourse. In addition, research on more general populations of young females indicates that, for at least some forms of interpersonal aggression, females have a higher rate than males. For instance, a recent study of interpersonal violence among college students found that a higher percentage of females than males reported slapping, biting, and kicking their dating partners (Lottes & Weinberg, 1996).

Another misconception surrounding female sexual aggression is that it is impossible for a female to have sexual relations with a male who does not wish to do so (i.e., how can a female accomplish penile-vaginal intercourse with a reluctant male?). This notion also can be debunked by empirical evidence. It has been shown that males can experience sexual arousal due to touch stimulation or strong emotional reactions,

such as fear, even in the absence of any psychological desire for a female aggressor (Sarrel & Masters, 1982). Moreover, female sexual aggression is not limited to acts involving penile-vaginal intercourse, it also typically involves the more manageable acts of manual and oral stimulation of the penis (Anderson & Struckman-Johnson, 1998).

To date, there is little empirical research on adolescent female sex offending and there are no widely accepted theories developed specifically for adolescent female sex offenders. For this reason, when examining adolescent female sex offending, it is helpful to look to theories developed for their male counterparts. The most widely accept model of adolescent male sex offending is that of Ryan, Lane, Davis, and Isaac (1987). Ryan and colleagues (1987) developed their theory rationally, based on clinical observations of distorted thought patterns in adolescent male sex offenders, and it has not yet been empirically validated. The model hypothesizes that cognitive distortions about sex offending (e.g., minimization of harm to victim, justification of the offense as "caused" by the victim) play a primary role in sexually aggressive behavior, for instance, by lessening or eliminating altogether any feelings of guilt or shame about the offense. Ryan et al.'s (1987) observations regarding distorted thoughts are consistent with numerous other clinical reports of distorted thoughts (see Weinrott, 1996). Unfortunately, although the distorted thought patterns of sex offenders are prominent in the literature, there is surprisingly little empirical research in this area. In fact, there is such a dearth of research on this widely discussed phenomena that some have suggested that the numerous and compelling clinical reports of sex offenders' distorted thoughts may have created a paradoxical situation whereby it is assumed that these seemingly patent thought patterns have been established through research when, in fact, they have not. As

Weinrott (1996) pointed out, "[p]erhaps the prima facie evidence of "thinking errors" is so striking and uniform that empirical studies would only confirm the obvious" (p. 37).

Cognitions have been the focus of a few empirical studies on adolescent male sex offenders, with mixed results (e.g., Abel, Becker, Cunningham-Rathner, 1984; Hunter, Becker, Kaplan, & Goodwin, 1991). The mixed empirical evidence and clinical observations of distorted thoughts in adolescent male sex offenders does not, on its own, provide a convincing rationale for examining cognitions in adolescent female sex offenders. There are, however, other areas of literature that also point to the potentially important role of cognitive distortions in motivating and maintaining sexually aggressive behavior in adolescents. First, the literature on adult male sex offenders consistently demonstrates that adult males exhibit distorted thoughts about their sexually aggressive behaviors (e.g., Abel et al., 1989). Second, the cognitive-behavioral methods commonly used to treat sex offending adults and adolescents, which focus extensively on challenging distorted cognitions, have been shown to be the most effective type of sex offender treatment (see Marshall, Jones, Ward, Johnston, & Barbaree, 1991, for a review). Finally, the social information-processing literature demonstrates that aggressive adolescents tend to have distorted thoughts about aggression, such as perceiving aggression as justified (e.g., Slaby & Guerra, 1988).

The aim of the present study is to explore the cognitions of adolescent female sex offenders. This study draws on social-information processing theories of aggression in adolescents as a theoretical framework for understanding the role of cognitions in sexually offensive behaviors. Before reviewing this literature, research findings on several areas related to adolescent sex offenders will be reviewed. First, there will be a

discussion of the history of research on female adolescent delinquency to illustrate why it is necessary and important to examine this relatively small population of sexually aggressive adolescent females. Second, information will be presented on normative sexual development in order to provide a framework for what is considered inappropriate or aggressive sexual behavior in adolescents. Third, the empirical literature on adolescent female sex offenders will be reviewed. Because there are so few studies on adolescent females, information also will be presented on adolescent male and adult female sex offenders. Third, the various lines of evidence for the potentially important role of cognitions in sex offending will be reviewed. Finally, the social-information processing theory of aggression in adolescents will be presented.

Historical Perspectives on Female Delinquency

The academic study of delinquent behavior, for the most part, has been the study of male delinquency. As one feminist criminologist who challenged the overall male oriented nature of criminology explained: "women and girls exist as Other: that is to say they exist only in their difference from the male, the normal" (Cain, 1990). Because theories of adolescent delinquency have typically ignored girls, it is not clear whether the theories can adequately explain the problem of delinquency in girls. The extensive focus on male delinquency, and the related inattention to gender, also brings into question the ability of these theories to fully explain delinquency in general (Chesney-Lind & Sheldon, 1998).

About a quarter of the young people arrested every year in the United States are girls, yet few people think of girls when there is talk about the problem of "delinquency" (Chesney-Lind & Sheldon, 1998). Self-report studies suggest that there are more

similarities between male and female adolescent delinquency than official statistics suggest. The FBI arrest figures from 1995 revealed that three times as many boys as girls are arrested for delinquent behavior (FBI, 1995). Similar to arrest statistics, self-report studies indicated that males are more involved in delinquency than females, especially the more serious offenses; however, self-report studies failed to find statistically significant differences between the rates of boys' and girls' criminal behaviors in 40% of the behaviors examined (e.g., Canter, 1982). Based on the self-report evidence, some criminologists have suggested that the emphasis on male and female behavior differences may obscure the fact that behaviors engaged in by most youths are actually very similar, with gender differences emerging only at the extremes (Chesney-Lind & Sheldon, 1998).

The earliest theories and descriptions of women's crime focused almost exclusively on female sexual deviancy. In one of the first attempts to explain female criminology, Lombroso and Ferrero (1895), speculated that women's crimes were often caused by a preoccupation with sexual matters. Delinquent girls were viewed as girls who did not act "properly" and were lured into sexual activity. There was still a strong emphasis on female delinquent's sexuality in 1969 when it was speculated that "precocious biological maturity" played a primary role in female sexual delinquency (Pollak & Freidman, 1969). One of the first theorists to apply the concept of gender roles to the study of female delinquency was Ruth Morris (1964, 1965). To explain the smaller number of female delinquents, she hypothesized that women experienced fewer criminal opportunities, greater social disapproval for delinquent acts, and a stronger sense of guilt and shame for delinquent acts than their male counterparts. In support of her hypotheses, Morris found that girls experienced a greater amount of shame than boys did when

questioned about their involvement with police, tended to deny delinquent acts that they had committed, and were subjected to greater disapproval for their acts than boys who commit the same offense.

Fortunately, the last two decades have witnessed increased focus on and discussion of girl's issues, such that girls are no longer looked at simply in reference to boys. The landmark book by sociologist Carol Gilligan (1982), entitled In a Different Voice, which stressed the need to study the experiences of girls and women in their own terms, has contributed to this increased attention to girls' issues. Explanations of the differences in male and female delinquency are gradually giving way to more elaborate attempts to explain the role of gender in delinquency. The proposed investigation of girls who commit sex offenses represents a continuation of this trend.

Normative Sexuality in Childhood

Up until a century ago there was a tendency to think of children as asexual -- as if sexuality was something that magically appeared at puberty (Hyde & DeLamater, 1997). The fact that children, even infants, have sexual urges and engage in sexual behavior is now more commonly accepted. But what behaviors constitute sexually aggressive behavior? An examination what is considered "normal" sexual behavior in childhood may help answer that question.

There are two important factors to keep in mind when discussing the sexual behavior of children. First, although behaviors such as self-stimulation in infancy and childhood appear to have some of the features of adult experiences of masturbation (Goldman & Goldman, 1982, 1988; Masters, Johnson, & Kolodny, 1982), these behaviors are, at best, considered precursors to sexual experiences of adulthood. Child

sexuality researchers emphasize that, for infants and young children, the physiological response to genital stimulation is a reflex rather than a signal of "interest" in sex, and absolutely should not be interpreted using adult concepts of sexuality (Rathus, Nevid, & Fichner-Rathus, 1998). Similar to the sexual behavior of adulthood, the sexual play of childhood tends to occur within a particular interpersonal context (e.g., between friends), and it lacks the intense feelings of pleasure and eroticism associated with adult sexual behavior. Second, children's sexual behavior is reflective of the context in which they are raised and, as such, needs to be interpreted in light of individual and family variables. For instance, Friedrich and colleagues found that family violence, life stress, and family sexuality (e.g., parents attitudes toward co-sleeping, family nudity, pornography) were significantly related to the reported sexual behaviors of the children (Friedrich, Fisher, Broughton, Houston, & Shafron, 1998).

Infancy (0 to 2 Years)

The capacity of the human body to show a sexual response is present from birth. For example, vaginal lubrication has been found in baby girls during the 24 hours after birth, and male infants are sometimes born with erections (Masters et al., 1982). Stimulation of the genitals in infancy can produce sensations of pleasure in infants. Baby girls show behaviors that resemble adult orgasm by as early as 4 months, and boys show these behaviors as early as 5 months (Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953). Infants may discover self-stimulation or masturbation when they gain the capacity to manipulate their genitals with their hands, and masturbation is considered a common behavior for infants and young children. Children tend to start masturbating between 6 and 12 months, and masturbation to

orgasm typically occurs around age 2 (Reinisch, 1990). Children typically do not engage in genital play with others until around age 2. At about age 2, as children explore their environment and other people, they may investigate other children's genitals, or hug, cuddle, kiss, or climb on top of them (Gil & Johnson, 1993). Thus, there is a wide range of sexual behaviors in children at this age -- touching and rubbing one's own genitals, watching or poking others' bodies, or both, are generally considered appropriate sexual behaviors for children age 0 to 4 years (Gil & Johnson).

Early Childhood (3 to 7 Years)

Between the ages of 3 and 7 there is a marked increase in a child's general activities and interests. Consistent with this general increase, there also is a noticeable increase in sexual interest and activity (Hyde & DeLamater, 1997). A study of mothers' reports of their 2 to 5 year-old daughters' observable sexual behaviors found that 43.8% touch their private parts when at home, 15.8% engage in masturbation, and 26.9% try to look at people when they are nude or undressing (Friedrich et al., 1998). Interestingly, the 2 to 5 year-old girls were observed to be relatively more sexual compared with 10 to 12 year-old girls; there was an inverse relationship with age, such that for the total sample of children ages 2 to 12, the overall frequency of sexual behaviors peaked at age 5 for both girls and boys, then dropped off over the next 7 years.

The primary sexual activities in early childhood are masturbation and sexual play (Araji, 1997a; Rathus et al., 1998). A retrospective study of college students' reports of their childhood sexual behavior found that 20% of females and 15% of males had their first masturbation experience between the ages of 5 and 8 (Arafat & Cotton, 1974). Sex games like "doctor" and "show," which may begin around age 2, become common in

early childhood, with same-gender sexual play being more common than male-female play (Reinisch, 1990). Children's sex play at this age is motivated largely by curiosity and is considered part of the general learning experience of childhood (Hyde & Delamater, 1997). As part of their sexual play, children may poke each other's bodies, exhibit their genitals to each other, masturbate together (Rathus et al.), or attempt to insert fingers or objects into their anus, vagina, or other oral cavities (e.g., ears, nose), but typically stop these actions when it hurts (Gil & Johnson, 1993). A longitudinal study of early childhood peer sexual experiences, based on mothers' reports, revealed that 77% of children had engaged in sex play prior to age 6, with 47.6% engaging in activities other than "masturbation only" (Okami, Olmstead, & Abrahamson, 1997). With respect to gender differences in sexual behavior at this age, based on maternal reports of observable sexual behaviors, Friedrich et al. (1998), and Rutter (1971) found that 2- to 5-year-old boys engage in more masturbatory activity than girls, but Friedrich et al. did not find a substantial difference in the rates of masturbation (16.7% for boys compared with 15.8% for girls).

Preadolescence (8 to 12 Years)

Freud's label for this period of transition between childhood and puberty, the Latency Stage, reflects the common misconception that preadolescent children do not have sexual urges. Overtly sexual behaviors are more common in early childhood, then the behaviors tend to become less obvious as children get older. Children remain interested in and continue to explore their sexuality during preadolescence, but the exploration is in a subtler manner, such as sexualized pretending with Ken and Barbie dolls (Cantwell, 1995).

Many youngsters experience the beginnings of puberty and a related "sexual awakening" during preadolescence, at around age 9 or 10, but for many others it does not occur until adolescence (Hyde & DeLamater, 1997; Martinson, 1994). Increasing numbers of children engage in masturbation during preadolescence. Surveys of college students have found that 15 to 32% of females and 45 to 48% of males recalled masturbating by age 13 and that masturbation is the primary means of achieving orgasm during preadolescence for both genders (Arafat & Cotton, 1974; Kinsey et al., 1948; Kinsey et al., 1953).

Nearly two-thirds of children claim to have had some sort of sexual experience with peers prior to age 12 (Goldman & Goldman, 1982). The types of sexual behaviors considered appropriate during preadolescence expand to include petting, touching others' genitals, and dry humping (Gil & Johnson, 1993). Some children may begin digital or vaginal intercourse or oral sex during the latter part of preadolescence; however, these are not considered common heterosexual activities for this age (Martinson, 1994). According to Rathus et al. (1997), preadolescent sex play typically involves mutual display of the genitals with or without touching and the activities tend to be homosexual in nature, however, some heterosexual activity does occur. Kissing games are popular among children ages 10 to 13 years, and some children will "make out," which generally consists of no more than kissing (Hyde & DeLamater, 1997).

There are some gender differences in preadolescent sexual behavior. Boys generally start masturbating earlier than girls do (Arafat & Cotton, 1974), and boys seem to engage in sexual exploration activities with a group (e.g., masturbating together) whereas girls seem to engage in sexual exploration alone (Hyde & DeLamater, 1997).

Also boys are typically told about masturbation by their male peers, see their peers doing it, or read about it, whereas girls typically learn about masturbation through accidental self-discovery (Langfeldt, 1981).

Adolescence (13 to 19 Years)

Most people view adolescence as a period in life when sexuality dramatically emerges (Bukowksi, Sippola, & Brender, 1993; Hyde & Delamater, 1997). During adolescence, teenagers experience many fundamental changes, the most marked of which are bodily changes and increases in levels of sex hormones. It is during this period that many individuals have their initial interpersonal sexual experiences (Bukowski et al., 1993).

Masturbation increases markedly during adolescence. More adolescent boys report engaging in masturbation than girls and boys report masturbating more frequently than girls. A national survey of 1,067 teenagers found that 46% of teenage boys and 24% of girls reported masturbating (Coles & Stokes, 1985), and a smaller survey of 641 teenagers from northern California found that boys typically masturbate two to three times per week whereas girls do so about once per month (Hass, 1979). With respect to homosexual activity, one study found that approximately 11% of adolescent males and 6% of adolescent females reported having had homosexual experience (Sorensen, 1973). Of those who reported homosexual experiences, 24% had their first experience with a younger person, 39% with someone their own age, 29% with an older teenager, and 8% with an older adult.

Heterosexual behaviors typically progress over a four-year period from kissing, to French kissing, breast and genital fondling, to intercourse and oral-genital contact (Hyde

& DeLamater, 1997). A survey study of 1,067 teenagers revealed that 97% had kissed someone by age 15 (Coles & Stokes, 1985). The survey further revealed that girls tend to engage in kissing and oral sex earlier than boys; seventy-three percent of the girls and 66% of the boys had kissed someone by age thirteen and, of the 17 and 18 year-olds, 41% of the girls and about 33% of the boys had performed oral sex on a partner. More than half of the teenagers surveyed in a 1990s study by the U.S. Department of Health and Human Services reported engaging in intercourse (Haffner, as cited in Rathus et al., 1998). The boys and girls in the survey study reported having intercourse at around the same age: the average age of first intercourse was 16 for girls and 15.5 for boys.

Differentiating Appropriate and Abusive Sexual Behaviors

As described above, a wide range of sexual activities between children, even young children, can be considered normative. Beginning as young as age 2 children may engage in genital exploration with others and, between ages 3 and 7, many children masturbate and engage in sexual play with others. Sexual behaviors continue into preadolescence but tend to be more subtle or covert than in early childhood. Up until adolescence the sexual activity tends to be more homosexual in nature, but heterosexual behaviors, such as kissing games, are not uncommon. In adolescence, heterosexual behaviors range from kissing to intercourse and oral-genital contact, and boys appear to engage in more masturbatory activity. With such a wide range of behaviors, how can one determine if a behavior is inappropriate or might have a harmful effect on those involved?

It can be difficult to differentiate aggressive sexual behavior from normal sexual behavior among children and adolescents largely because the actual behaviors may be the

same in both a "normal" and an "aggressive" sexual interaction. For this reason, it is imprtant to consider the context in which the sexual behaviors were enacted. For instance, some researchers maintain that, when investigating questionable sexual activities between children, examination of possible power differences among participants is more importance than examination of the actual behaviors (Cantwell, 1995). Building on the work of Groth and Laredo (1981), Gil (1993) has proposed the several criteria, set forth below, for assessing the age-appropriateness of sex play between young children. Gil emphasizes that the presence of one factor alone is not enough to make a determination regarding the appropriateness of the behavior, the behavior must be considered in context.

Age difference between the children engaged in sex play. Mutual sex play between same-age children can be age-appropriate sexual behavior (e.g., mutual exploration). Gil (1993) considers sex play suspect when there is an age difference greater than 3 years, but others suggest a more lenient 5-year age difference (Watkins & Bentovim, 1992). The most obvious concerns arise when adolescents initiate sexual activities with pre-adolescent or preschool children and, given the vast developmental differences in younger children, a 3-year-old being targeted for play by a 7-year-old would also be a high-risk situation (Watkins & Bentovim).

Size difference between the children. Children develop physically at different rates. Even if two children are the same age, if one child towers over the other, there may be elements of dominance or threat in the play situation.

Difference in status. Children of the same size and age do not necessarily share equal power. One child may be in a position of increased power due to greater

popularity, leadership skills, athletic skills, cognitive abilities, or delegation to a more powerful position (e.g., babysitter).

Type of sexual activity. Of course, type of sexual activity should be considered when determining the appropriateness of a given sexual interaction between children. As discussed above, however, children exhibit a wide range of sexual behaviors and it is often difficult to determine the appropriateness of a given sexual interaction based solely on the type of activity.

Social dynamics. With age-appropriate, exploratory sex play between young children there is typically joy, laughter, spontaneity, embarrassment, and sporadic levels of inhibition and disinhibition (Gil, 1993). Normal sexual activity in children is motivated by curiosity, provides mutual interest and has mutual consent, and is "fun" or "silly" for the children (Kikuchi, 1995). In contrast, problematic or inappropriate sexual behaviors have themes of dominance, coercion, threats, and force.

Limitations of Adolescent Sex Offending Research

Research on adolescent sex offending as a whole (which is comprised, almost entirely, of research on male adolescent sex offenders) is limited. In their review of the literature, Becker, Harris, and Sales (1993) identified 73 articles on adolescent/adolescent sex offenders published during the 10-year period of 1982 to 1992. Of the 73 articles reviewed, 43 examined the characteristics of adolescent sex offenders. Of these 43 articles, 9 described offender and offense characteristics without presenting statistical information, 29 examined offender and offense characteristics using a sample population but with no comparison groups, and only 5 studied offender and offense characteristics by comparing a sample offender population with a random sample of adolescent

offenders who had committed non-sex offenses (i.e., non-sex adolescent offenders) or adolescents from the general population.

In their review of the literature, Graves, Openshaw, Ascione, and Ericksen (1996) emphasized that sampling procedures (e.g., sample selection, categorization of data, sample size, and extent of inclusion) is one of the most critical limitations of the adolescent sex offender literature. According to Graves et al. (1996), the studies to date (a) fail to represent adolescents from higher socio-economic status families, (b) fail to adequately collect demographic and family history information, (c) tend to use small sample sizes, which increases the occurrence of Type I and Type II errors and thus hampers interpretations of the data, and (d) use assessment instruments that have neither been standardized nor undergone adequate psychometric evaluation.

Adolescent Female Sex Offending

The National Adolescent Perpetrator Network identified the following limitations of the research on adolescent female sex offenders: (a) few studies, (b) small sample sizes, and (c) lack of comparison samples of either normal female youth or sexually abusive female youth in different communities or different treatment sites (National Adolescent Perpetrator Network, 1993). As noted above, in addition to these limitations, there is a lack of theories on female adolescent sex offending.

Existing studies of the incidence and prevalence of sexual abuse by adolescent females indicate that this population may be responsible for more sexual abuse of children than was previously suspected or is currently detected (National Adolescent Perpetrator Network, 1993). The information presented below was drawn from the results of four commonly cited studies on adolescent female sex offenders (Fehrenbach &

Monstersky, 1988; Hunter, Lexier, Goodwin, & Browne, 1993; Johnson, 1989; Mathews et al., 1997). The studies report on samples of adolescent females ranging in size from 10 (Hunter et al., 1993) to 67 (Mathews et al.), with average ages ranging from 7.5 years (Johnson) to 15 years (Hunter et al.).

Small sample sizes, sample selection bias, and reliance on retrospective recall comprise the major limitations of these studies. In each study the samples were drawn from residential or community treatment programs for sexually abusive youths. As the authors themselves note, it is likely that the results are biased in that girls are only referred to such treatment programs if they have committed more serious sex offenses, such as rape or molestation (vs. hands-off offenses such as exhibitionism). Two of the four studies report on samples containing less than 20 subjects. Last, because the data from these studies are retrospective, they are subject to distortions of memory and the influence of later therapeutic experiences. Given these limitations, the following information should be interpreted with caution.

Descriptive Research Findings

Sexual and physical abuse histories. Most studies show that a large majority of adolescent female sex offenders have a history of sexual abuse, with findings ranging from 77% to 100% (Hunter et al., 1993; Johnson, 1989; Mathews et al., 1997). Fehrenbach and Monastersky (1988), however, found that a lower percentage (50%) reported a history of sexual abuse. The findings with respect to histories of physical abuse are more varied and slightly lower, with figures ranging from 20% to 80% (Fehrenbach & Monastersky; Hunter et al.; Johnson; Mathews et al.).

It appears that sexual victimization typically begins at a very young age. For instance, Hunter et al. (1993) reported a mean of five years for the age of onset of sexual victimization, and Mathews et al. (1997) reported that the majority of their sample were victimized prior to age five years. Moreover, the majority of the sexual abuse appears to be perpetrated by a family member (Hunter et al.; Johnson, 1989; Mathews et al.) Both Johnson and Mathews et al. found that over 50% were victimized by a parent or step-parent. Hunter et al. examined sexual arousal associated with victimization and found that 80% reported experiencing sexual arousal or excitement during one or more of their victimization experiences. Mathews et al. found that, in comparison to their sample of boys, the girls tended to have experienced more severe sexual victimization: the girls reported a higher average number of molesters, a younger age of first victimization, and more frequently reported having been subjected to offender aggression.

Psychiatric and developmental characteristics. The extant literature indicates that the majority of adolescent female sex offenders have histories of previous mental health treatment (Hunter et al., 1993; Mathews et al., 1997). Both Hunter et al. and Mathews et al. found a high prevalence of post-traumatic stress disorder (90% and 50%, respectively), and mood disorders (100% and 50%, respectively). They both also found that many girls had histories of suicidal ideation/attempts, running-away, alcohol/drug abuse, and learning disabilities. With respect to IQ level, Hunter et al. reported a mean IQ in the average range, and Johnson (1989) reported that 15.3% of her sample had IQs in the mildly retarded range.

History of other criminal offenses or aggressive behaviors. The findings with regard to other non-sexual assaultive behavior suggest that adolescent female sex

offenders do not have extensive histories of non-sex assaultive behaviors. For instance, Fehrenbach & Monastersky (1988) and Hunter et al. (1993) reported that 0% and 10% of their samples engaged in victim-involved nonsex assaults. Findings regarding non-victim involved offenses, such as theft, and other antisocial aggressive behaviors are mixed (Fehrenbach & Monastersky; Hunter et al.).

Victim characteristics. It appears that adolescent female offenders typically perpetrate sexual offenses against multiple victims. The victims tend to be younger children of either gender who are known to the offender. Reports on number of victims suggest an average of two to three victims per offender (Hunter et al., 1993; Johnson, 1989; Mathews et al., 1997). About 50% of adolescent female offenders victimize both females and males (Hunter et al.; Johnson; Mathews et al.). With respect to victim age, this population appears to commit sex offense primarily against younger victims who tend to be, on average, around five years old (Fehrenbach & Monastersky, 1988; Hunter et al.; Johnson; Mathews et al.). Adolescent female sexual offenders tend to offend against non-stranger victims. The majority of the studies report that they assault strangers less than 10% of the time (Fehrenbach & Monastersky; Johnson, Matthews et al.) and, in general, are most likely to victimize a relative (Hunter et al., Johnson, Mathews et al.).

Sexual offense characteristics and behaviors. Findings regarding offender characteristics and offense behaviors suggest that adolescent female sex offenders often begin their offenses at a young age, use physical force in their offenses, and engage in serious offense behaviors. Similar to their male counterparts, adolescent female sexual offending behaviors range from fondling to oral sex to vaginal and anal intercourse.

Over half of the girls in Fehrenbach and Monastersky's (1988) sample had been referred for rape, which was defined by the authors as anal or vaginal intercourse or penetration with objects or fingers. Similarly, Hunter et al. (1993) reported that most of the girls in their sample had engaged in vaginal intercourse and oral sex with their victims and all had engaged in fondling. Out of their larger sample of 67 girls, Mathews et al. (1997) found that well over half had engaged in fondling, almost half in oral sex, and over a fourth in vaginal or anal intercourse.

The average age of first offense reported in the literature ranges from 6.9 years (Johnson, 1989) to 9.5 years (Hunter et al., 1993). The findings suggest that about 20% to 40% of female adolescent offenders are likely to use physical force (Johnson; Hunter et al.; Mathews et al., 1997) and about 40% verbal coercion (Johnson) while committing their sex offense. In contrast to the finding that adult female sex offenders commonly commit sex offenses along with their partner or husband, often as a result of coercion, the evidence suggests that adolescent females typically act alone (Fehrenbach & Monasterksy, 1988; Johnson).

The nature of these sexually aggressive behaviors distinguishes them from a type of aggressive behavior considered normative for girls called "relational aggression." Relationally-oriented forms of aggression involve harming others through damage to their peer relationships or the threat of such damage (e.g., angrily retaliating against a peer by excluding her from one play group). Relational aggression has been shown to be more characteristic of girls than the more overt forms of aggression typically exhibited by boys (e.g., pushing, hitting, threatening to beat up a peer; Crick & Grotpeter, 1995). The

sexually aggressive behaviors described above constitute overt aggression and, thus, are considered non-normative forms of aggressive behaviors.

Comparison Studies

Comparisons with other groups of adolescent females. This author recently conducted an exploratory study of the background characteristics of a group of 11 adolescent females with histories of sex offending compared with an age-matched group of 11 adolescent female non-sex offending delinquents with histories of non-sex victim-involved crimes (Kubik, Hecker, & Righthand, 2002a). Based on a retrospective review of the girls' records, the results suggest that the non-sex delinquent offenders (a) had more extensive contact with the adolescent justice system, (b) committed their first offense at a later age, (c) were more likely to reside with their biological parents, (d) experienced more problems with alcohol and drugs, and (e) engaged in more antisocial and aggressive behaviors (e.g., truancy, fighting, property destruction) than their sex-offending counterparts. The two groups had similar histories of neglect and sexual abuse, but the sex offenders had more extensive histories of physical abuse. Nine percent of the sex offenders had a history of prior probation compared with 54% of the non-sex delinquent offenders. At the same time, the average age of first offense for the sex offenders (11 years) was substantially younger than that of the non-sex delinquent offenders (14.5 years). This discrepancy suggests there may be either a problem with detection of adolescent female sex offenders or a reluctance to process them in the criminal justice system, or both. Although preliminary, the findings suggest that there may be important differences between adolescent females who commit sex offenses and their peers who commit non-sex victim-involved crimes.

Bumby and Bumby (1995) conducted a more extensive comparison of the background characteristics of adolescent female sex offenders (n=18), female non-offenders (n=36), male sexual offenders (n=18), and male non-offenders (n=24). All of the participants were drawn from an inpatient psychiatric unit for emotionally disturbed children. The results of the male-female sex offender comparison will be discussed in the following section. Compared to the adolescent female non-offenders, the female sex offenders obtained significantly higher scores on the Psychopathic Deviate and Paranoia subscales of the MMPI, reported significantly more suicidal behaviors and symptoms of anxiety and depression, and significantly lower self-concepts. The two groups of females did not differ with respect to school histories, history of delinquency, or drug and alcohol abuse. The female sex offenders reported higher rates of abuse (100% vs. 78%), however, this difference was not significant. Thus, the adolescent female sex offenders had more psychopathology and lower self-concepts than the non-offenders, but were not different with respect to their alcohol/drug use, school histories, or delinquency histories.

Comparisons with adolescent male sex offenders. This author also conducted an exploratory study comparing 11 adolescent females with histories of sexual offending with an age-matched group of 11 adolescent males with histories of sex offending (Kubik, Hecker, & Righthand, 2002b). The groups were compared with respect to psychosocial histories and clinical treatment factors based on a retrospective review of records. The two sex-offending groups were remarkably similar. There were few differences with respect to psychosocial and criminal histories, antisocial behavior, and variables related to clinical presentation and treatment (e.g., level of denial about offense). Comparisons on offense characteristics (e.g., specific offense behaviors)

revealed no significant differences. Similar proportions of each group had sexual abuse histories, however, the females experienced more severe and pervasive abuse than the males.

There are two other studies comparing adolescent female and male sex offenders (Bumby & Bumby, 1995; Mathews et al., 1997). Bumby and Bumby found that their sample of adolescent female sex offenders did not differ from their male counterparts with respect to the MMPI subscales, anxiety and depressive symptoms, suicidal thoughts/behaviors, or self-concept. The adolescent female sex offenders had higher rates of sexual abuse than the males (100% vs. 55%), but this difference was not significant. As Mathews et al. pointed out, it may be that the rates of abuse do not differ substantially, but the frequency and severity do differ such that females have more frequent and severe histories of abuse. Bumby and Bumby found that the only significant differences between the adolescent female sex offenders and their male counterparts were that the females had higher rates of truancy and drug abuse. It may be that girls are likely to be picked up for their sexually aggressive behavior only when they also engage in truancy and other forms of antisocial behaviors (i.e., they are not introduced into the correctional or child protective systems for their sexually aggressive behavior). Alternatively, in comparison to their male counterparts, girls may have a higher threshold of disturbance before they engage in sexually aggressive behavior.

Mathews et al. (1997) compared their sample of 67 adolescent female sex offenders to a comparison sample of 70 adolescent male sex offenders. Mathews et al.'s comparison revealed the following. First, on average, the females perpetrated against more victims and committed more offenses against their victims than the males. Second,

the two groups of adolescent offenders were similar with respect to a number of psychiatric and developmental variables, including prior mental health treatment, suicidal ideation/attempted suicide, and running away, although more of the adolescent females abused drugs or alcohol, and more of the males had learning disabilities. Finally, the females had more extensive histories of sexual abuse. About 77% of the adolescent female sex offenders and 44% of the males reported histories of sexual abuse, with the females reporting a younger age of first abuse and more perpetrators than their male counterparts. The females also had more extensive histories of physical abuse.

Mathews et al. (1997) concluded that the two groups appeared to engage in somewhat similar offense behaviors and that, although much less common than their male counterparts, the adolescent female sex offenders appear to commit offenses of the same severity as the males. The authors further concluded that females appear to undergo more extensive sexual and physical abuse victimization and at younger ages than their male counterparts. This suggests that young females may have a higher threshold for abuse victimization experiences (i.e., girls may react differently than boys to the same level of victimization and resort to abusive behaviors themselves only after experiencing higher levels of abuse than boys). Notwithstanding these findings regarding history of abuse, the comparisons of adolescent male and female sex offenders suggest that these two groups are somewhat similar with respect to offense behaviors, psychopathology, self-concept, school histories, and delinquency histories.

Adolescent Male Sex Offending

Literature Reviews

As might be expected, the literature on adolescent male sex offenders is more extensive than the literature on their female counterparts. Several comprehensive reviews have been published on adolescent male sex offending (e.g., Aljazireh, 1993; Becker et al., 1993; Davis & Leitenberg, 1987; Graves et al., 1996). Davis and Leitenberg published the first comprehensive review of adolescent male sex offending in 1987. Based on the literature at that time, Davis and Leitenberg concluded the following: (a) adolescents account for a large share of sex offenses committed in this country, with the most conservative estimates suggesting about 20% of all cases; (b) in almost two-thirds of the offenses, the victims are younger children, with the majority being acquaintances or relatives of the offender; (c) generally there are more female than male victims; (d) adolescent sex offenders have a higher frequency of abuse in their backgrounds than non-offenders; (e) they frequently show current and past signs of behavioral and school disturbances; and (f) they appear to have had similar sexual experiences as non-offenders.

More recently, Becker and colleagues published a critical review of the adolescent male sex offending literature (Becker et al., 1993). Based on their review, the authors developed categories for types of offenses and offender characteristics. The authors categorized types of offenses as follows: (a) hands-off offenses (e.g., voyeurism, exhibitionism, and obscene phone calls); (b) hands-on offenses involving force committed against females the same age or older (e.g., fondling, sexual assaults, rape, and attempted rape); and (c) pedophilic offenses or child molestation against a younger victim, typically involving a high degree of coercion (i.e., offenses against victims 4 or

more years younger than the offender). Note that, to date, there is no distinction between hands-on sexual abuse, such as rape, and child molestation in the adolescent female sex offender literature. Becker et al. categorized offender psychosocial characteristics into three categories: individual, family environment, and social environment. The typical characteristics associated with the individual sex offender included deficits in social and assertiveness skills, a history of nonsexual delinquency, low academic performance, lack of impulse control, and lack of sex education. The characteristics associated with the family environment included an unstable home environment, an unusual or unhealthy home situation, and family violence in the home. The characteristics associated with the social environment of the sex offenders included isolation and history of antisocial behavior.

Aljazireh (1993) also conducted a critical review of the literature, focusing on the historical, environmental, and behavioral correlates of adolescent male sex offending. She concluded that there is strong evidence for the supporting role of early childhood victimization, delinquency history, and family and social/relationship variables in adolescent male sex offending, and noted that studies investigating sexual history, psychopathology, and intellectual functioning of adolescent male sex offenders have found generally inconclusive results. Aljazireh suggested that, although not a major cause of later sexual offending, childhood sexual victimization, is an important contributing factor in adolescent sexual offending.

Graves et al. (1996) published a meta-analytic review of the adolescent sex offender literature. Graves et al. examined 20 years (1973-1993) of empirical data on the demographic characteristics of adolescent sex offenders. Three categories of adolescent

sex offender types emerged: (a) pedophilic (child molester), (b) sexual assault offender (rapist), and (c) mixed offense offender. The meta-analysis further revealed that, as a whole, adolescent sex offenders come from predominantly middle and lower socioeconomic status families, with considerably more of the adolescent assault offenders living in single-parent families than pedophilic or mixed offenders.

Descriptive Research Findings

Victim characteristics. Most victims of adolescent male sex offenders are under age 8 (Davis & Leitenberg, 1987; Johnson, 1988; Mathews et al., 1997) and are more likely female than male. The National Adolescent Perpetrator Network reported that twice as many of the referring offenses involved female victims (National Adolescent Perpetrator Network, 1993). Mathews et al., however, reported more equal numbers of male and female victims (47% and 31.8%, respectively), with 21.2% offending against both. Mathews et al.'s finding is similar to findings on adolescent females, who appear to be heterogeneous with respect to victim gender. Also similar is the finding that most victims of adolescent male sex offenders are known by the offender, and are most often a relative (Davis & Leitenberg; Johnson; Mathews et al.).

Sexual offense characteristics and offense behaviors. Similar to adolescent female sex offenders, many adolescent males commit offenses that involve fondling, oral sex, and vaginal intercourse (Fehrenbach, Smith, Monastersky, & Deisher, 1986; Mathews et al., 1997). Most adolescent males use verbal coercion in their offenses, and many use physical coercion (Fehrenbach et al., 1986; Johnson, 1988; Mathews et al.). Findings with respect to presence of a co-defendant or accomplice during the sex offense are mixed, some studies report that, similar to adolescent female sex offenders, a large

majority commit offenses alone (e.g., Groth, 1977), whereas others have found that they act in concert with another (e.g., Amir, 1971).

Adult Female Sex Offending

In 1984 Finkelhor and Russell published one of the first comprehensive reports of female sex offending based on data that had been collected in an American Humane Association (1981) study on sex offenders and on the National Incidence Study (1981) of sex offenders. Based on these studies they estimated that the rate of sexual abuse by females is 5% for girl victims and 20% for boy victims.

Much of the information on the prevalence of adult female sexual offending comes from studies of perpetrators with a history of victimization, the findings of which suggest that female sex offending tends to be underreported and is much more common than previously thought. A study of the childhood sexual victimization experiences of male rapists found that 40% of those with histories of sexual victimization were victimized by women (Burgess, Groth, Holmstrom, & Sgroi, 1987). Another study of adult male sex offenders found that 59% were victimized by women and, of those cases, 82% involved intercourse (Petrovich & Templer, 1984). Possible reasons for underreporting of female sexual offending include a societal reluctance to view women as sexually aggressive, victim fears of stigmatization, lack of awareness of the problem by mental health professionals, and the female perpetrators' increased ability to hide child molestation under the guise of child-care activities (e.g., bathing).

Adult female offenders differ from their male counterparts in a number of areas. In her review of this literature, Jennings (1993) described four major differences. First, many more females sexually abuse along with another person, such as a male partner

(Mathews, 1989). In these cases, the women typically play a secondary role and often are coerced into the activity. Second, female sex offenders tend to use violence less frequently than their male counterparts. Third, female sex offenders are more likely to know their victims; this may be due to women's traditional role as caretaker and their resultant proximity to children. Last, as a group, females tend to offend less frequently and against fewer victims, and the duration of their offense behavior (i.e., their offense history) is shorter in comparison to male sex offenders.

One aspect of female sex offending that is consistently documented is that they tend to be heterogeneous, so much so that it may be impossible to speak of a "typical" female sex offender (Jennings, 1993). Given the apparent heterogeneity of this population, combined with the relative lack of research and methodological limitations of the research in this area, the following information should be interpreted with caution.

Descriptive Research Findings

Sexual and physical abuse histories. When Kaplan and Green (1995) compared a sample of female sex offenders with a matched sample of non-sex offenders, they found that the sex offenders had a higher incidence of prior physical and sexual abuse and were much more likely to have been abused within their own families. Other reports also indicate high rates of abuse. From 47% to 100% of adult female sex offenders have childhood sexual abuse histories and most also have histories of physical abuse (Faller, 1987; Mathews, Mathews & Speltz, 1991).

Psychiatric and developmental characteristics. About 40% to 65% of female sex offenders have histories of past or present mental health problems (Faller, 1987, 1995; Kaplan & Green, 1995; O'Connor, 1987). Similar to findings with adolescent females,

the adult females exhibit a high prevalence of post-traumatic stress disorder, mood disorders, and alcohol/drug abuse. One study that examined IQ found that 22% of the sample was mentally retarded (Faller, 1995).

Offense related behaviors and victim characteristics. The majority adult female sex offenders commit multiple sex offenses (Faller 1987, 1995; Mathews et al., 1991). They typically are acquainted with their victim and in about half the cases abuse their own children (Faller, 1987, 1995). Adult females sex offenders are more likely to victimize females (Faller, 1987; Kaplan & Green, 1995; Mathews et al.), but a substantial portion perpetrate against both males and females (Faller, 1995). Their victim's ages range anywhere from 0 to 14 years, with the majority under age 8 (Faller, 1987; Kaplan & Green; Mathews et al.).

The majority of adult female sex offenses involve contact behaviors such as fondling, oral sex, vaginal intercourse, or digital penetration. Of these fondling is one of the most commonly cited offense behaviors. In contrast to adolescent females, adult females engage in exploitive behaviors (Faller, 1987, 1995; Kaplan & Green, 1995; Mathews et al., 1991). This may be related to the finding that adult female sex offenders often engage in sex offenses along with a co-defendant; Mathews et al. reported that 56% perpetrated along with their husband at least initially, and Kaplan and colleagues found that 45% were involved in coercing the victim into sexual activity with an adult male accomplice. In contrast, co-perpetration is relatively rare among sexually abusive adolescent females.

Cognitive Distortions in Sex Offenders

Empirical Evidence of Cognitive Distortions

Research on cognitive distortions in sex offending is for the most part limited to research on adult males, thus this discussion will focus primarily on evidence of cognitive distortions in adult male sex offenders. Research on adult male sex offenders suggests that cognitive distortions are a potentially important factor in sexually aggressive behavior (see Ward, Hudson, Johnson, & Marshall, 1997, for a review). In his review of the literature on cognitions, Murphy (1990) came up with the following three categories of distorted thought patterns in adult male sex offenders: justification (i.e., offenders justify their conduct by viewing it as morally permissible and/or psychologically justified); minimization (i.e., offenders distort or consequences of their sexually abusive behaviors by either minimizing or misattributing the consequences to the victim); and victim blaming (i.e., offenders devalue or dehumanize their victims and blame them for the offense).

Abel et al. (1989) have extensively investigated offenders' beliefs about sex offending. Abel developed a cognition scale (the Abel Cognitions Scale) to assess the distortions about sex between adults and children exhibited by sex offenders. Abel et al. (1989) hypothesized that the distortions serve to legitimize sexual involvement with children and function to maintain the behavior. Using this scale, Abel et al (1989) found that child molesters exhibited a considerable number of distortions (e.g., that sex between children and adults does not harm children and that children actively seek sexual contact with adults). Child molesters displayed significantly more cognitive distortions than a normal control group on each of the six factors in the Abel Cognitions Scale, and could

be differentiated from a group of paraphilics using the scale. Abel et al. (1984) found that these beliefs seem to increase along with increased offending.

Abel's results are supported by other researchers. Stermac and Segal (1989) found that child molesters report significantly more cognitive distortions on the Abel scale than either rapists or non-sex offenders. Hayashino, Wurtele, and Klebe (1995) found that extrafamilial child molesters showed more cognitive distortions on the Abel scale when compared to incest offenders, rapists, other nonsexual offenders, and controls.

The Multiphasic Sex Inventory (MSI; Nichols & Molinder, 1984) has two subscales that measure cognitive distortions. Barbaree and Nichols (1991) found that child molesters exhibited distortions as measured by these scales. Using the Hanson Sex Attitudes Questionnaire, Hanson, Gizzarelli, and Scott (1994) showed that incest offenders perceive children as both sexually attractive and sexually motivated, and minimize the harmful consequences of sexual abuse. Their attitudes regarding sex also differed from those of batterers and of non-offending males.

In their 1989 study, Stermac and Segal attempted to use a less transparent method of measuring cognitive distortions. Rather than use self-report scales, such as the MSI or the Abel Cognition Scale, they investigated the cognitions of sex offenders by having subjects judge vignettes depicting sexual contact between an adult male and a child. This measure is similar to the hypothetical situations questionnaires used by social information-processing researchers. They found that, when the child in the vignette responded in an ambiguous manner, the child molesters were more likely than other groups to perceive the child as benefiting from the sexual contact, see the child as more complicit, and place less blame on the offender. As Ward et al. (1997) noted, this

finding may reflect a maladaptive underlying schemata in sex offenders and suggests that this schemata may bias their interpretations of the victim's behavior (Ward et al.).

Do adolescent male sex offenders exhibit these same types of cognitive distortions? To date there are just two empirical investigations of the cognitions of adolescent sex offenders (Abel at al., 1984; Hunter et al., 1991). When testing a version of Abel's Cognition Scale revised for use with adolescents, called the Adolescent Cognition Scale, Abel and colleagues found that the scale was able to discriminate adolescent sex offenders from a control group, but not from a group of non-sex offending adolescent males. Using the same scale, however, Hunter et al. failed to find differences between a group of adolescent male sex offenders and a group of matched controls. These mixed findings certainly do not provide conclusive evidence of cognitive distortions in adolescent sex offenders; yet there is a great deal of anecdotal clinical evidence that, similar to adult sex offenders, adolescent male sex offenders exhibit cognitive distortions that seem to play a prominent role in their sex offending behaviors (Ryan et al., 1987; Weinrott, 1996).

Unfortunately, there are no studies focused on cognitive distortions in adolescent or adult female sex offenders, although some information on cognitive distortions in adult female sex offenders can be garnered from the findings of general descriptive studies. One study found that 72% of their sample denied their offenses, and most rationalized them as victim induced (Kaplan & Green, 1995), whereas another found that only 6% blamed their victims and the majority took responsibility for their offense (Mathews et al., 1991).

Theories of Adolescent Male Sex Offending

There are two models of adolescent male sex offending in the published literature (Becker & Kaplan, 1988; Ryan et al., 1987). Both were drawn from theories of adult male sex offending and neither is empirically derived nor validated. The most widely accepted and comprehensive theory is Ryan and colleague's clinically derived cognitive behavioral model of adolescent sexual aggression, commonly referred to as "the sexual abuse cycle," based on clinical observations of commonalities among adolescent sex offenders, including cognitive distortions. The model is relatively broad based, attempting to identify numerous cognitive and behavioral factors that occur prior to the onset of the offense behavior and explain how each subsequent offense reinforces and contributes to future offending in a cyclical fashion. However, much emphasis is placed on distorted cognitions as both precipitating and maintaining factors. The four main types of cognitive distortions identified by Ryan et al. include the following: (a) thinking errors that contribute to or support criminal or antisocial behavior; (b) justifications or rationalizations that make the sexual offense behavior seem reasonable; (c) inaccurate beliefs or perceptions about the motivations of others; and (d) assumptions, conclusions, perceptions, and fears about the world.

The Ryan et al. (1987) model proposes a six-stage cycle that begins with the adolescent offender experiencing a negative self-image (negative self-image stage) triggered by a multitude of emotional situations, (e.g., feeling rejected, ignored, and victimized). The feelings may reflect some element of reality but, because of the offender's negative self-image, result in an increased probability of maladaptive coping strategies when confronted with negative responses. The feelings of low self-esteem also

lead the offender to expect or predict rejection from others (prediction rejection stage) and, consequently, the offender relates to others in a way that will either fulfill the expectation of being rejected or rejects others before they reject him. To protect against anticipated rejection, the offender becomes socially isolated and withdrawn (isolation stage), then resorts to fantasies to compensate for feelings of lack of control or powerlessness (fantasy stage). The goal of the fantasies is to evoke the same negative feelings in the fantasized victim by controlling and overpowering; the fantasies also may provide the opportunity to visualize the offense (planning stage). In the final stage (sexual offense stage) the offender's feelings of enhanced power generate cognitive distortions that enable him to act out his fantasies with an inappropriate and/or unwilling partner whom he thinks "wants," "invites," or "deserves" his sexual assault. The offense vindicates the offender's feelings of rejection, makes him feel powerful, and leads to more cognitive distortions (e.g., rationalizations for and minimizations of the behavior). After the offense, however, the offender experiences sobering thoughts of potential consequences of the offense, leading to more negative self-imaging and thoughts of rejection, bringing the offender back to the beginning of the repetitive cycle (Lane, 1997; Ryan et al., 1987).

Thus, in Ryan et al.'s (1987) model, irrational and inaccurate cognitions play a key role in the development and maintenance of sexually abusive behaviors in adolescent males. Thoughts that the victim "invites" or "wants" to be victimized enable the sexual aggressor to act out the offense, and minimizations and rationalizations of the behavior allow the aggressor to feel less guilt and increase the likelihood of engaging in the behavior again. Through repetition, the distorted thoughts become more ingrained and

develop into a belief system that supports a habitual, sexually aggressive response to many situations. The model is one of the most widely accepted theories of adolescent sexual aggression, but it has not yet been adequately empirically validated. As Weinrott (1996) noted, there is no conclusive evidence supporting the key element of the model -- the presence of cognitive distortions about sexually aggressive behaviors in adolescent sex offenders.

Cognition Restructuring in Sex Offender Treatments

Cognitive behavioral treatments for sex offenders typically focus on challenging cognitive distortions, through cognitive restructuring techniques, as a key component of treatment (e.g., Abel, Becker, & Mittelman, 1985). Research suggests these cognitive-behavioral treatments are the most consistently effective approaches for the treatment of sex offenders (see Marshall et al., 1991, for a review). This approach has garnered some support with the adolescent population as well (e.g., Becker, Kaplan, & Kavoussi, 1988).

When examining the empirical literature on treatments for sex offending, it is important to keep in mind this literature is hampered by methodological problems. The primary problem is that, due to ethical concerns of withholding treatment, there are few controlled comparisons of treatment versus no-treatment conditions. The few studies that do include no-treatment groups are confounded by treatment assignment methods: the no-treatment controls either chose not to participate in treatment or were prevented from participating due to incarceration (e.g., Marshall & Barbaree, 1988). Given the difficulties of controlled comparisons, researchers often track recidivism rates to determine treatment effectiveness; however, these rates are difficult to interpret due to short follow-up periods, low rates of re-arrest for adolescent sex offenders (see Davis &

Leitenberg, 1987, for a review), difficulties defining recidivism, and inadequate or inaccurate recording procedures (see Furby, Wienrott, & Blackshaw, 1989, for a review). Self-report measures can be used to measure outcome, but they are often transparent, requiring little effort to pick out the socially acceptable response (Stermac & Segal, 1989), and the psychometric properties of many questionnaires in this area have not been adequately established.

Notwithstanding these limitations, the data so far support the effectiveness cognitive behavioral treatments (e.g., Marquees, 1991; Marshall & Eccles, 1995; Miner, Marquees, Day, & Nelson, 1990). Marshall and Eccles describe a cognitive-behavioral group treatment model for adults designed to address cognitive biases that support sexual aggression, which has been shown to be effective (Marshall, 1996). The treatment targets the following three categories of cognitive biases: (a) denial and minimization (e.g., blaming others, blaming external factors), (b) perceptions that the victim was not harmed and lack of empathy for the victim, and (c) offense-supportive attitudes and beliefs (e.g., sex offending is not that big a deal).

Another cognitive behavioral treatment shown to be effective is that of Marquees and colleagues. The "Sex Offender Treatment and Evaluation Project" (Marquees, 1991; Miner et al., 1990) examined the efficacy of cognitive-behavioral treatment for adult sex offending using an experimental design, with random assignment to treatment and no-treatment conditions. Preliminary findings showed that treated subjects exhibited gains relative to the no-treatment control group in terms of (a) fewer cognitive distortions, more internal locus of control, less deviant arousal, and improved ability to cope with potential

relapse situations, (b) lower re-offense rates, and (c) a significantly increased latency to re-offense.

This approach is also effective with adolescent sex offenders. One survey study on the types of treatment that programs use found that 63% of the 574 adolescent sex offender providers surveyed used a cognitive-behavioral approach. The cognitive component of treatment is typically carried out in a group format. Morenz and Becker (1998) provide a general description of a cognitive-behavioral treatment, which illustrates the primary role of cognitive restructuring in the treatment approach. The first step in treatment involves confrontation of denial or minimization regarding the offense. As denial and minimization are reduced, therapy then focuses on the development of empathy for the victim. The reduction in denial and minimization and development of victim empathy forms the foundation for the remainder of the treatment program, which includes a psychoeducational component designed to increase understanding of the factors that led to the offense, and a behavioral component targeted at the adolescent's deviant sexual arousal pattern.

Another cognitive-behavioral program used with adolescent sex offenders is that of Becker (1990), which was developed from Abel's cognitive-behavioral program for adults. The six components of the Becker's treatment program are as follows: (a) verbal satiation sessions aimed at teaching offenders how to use deviant thoughts in a repetitive manner such that they become satiated with their inappropriate sexual fantasies; (b) cognitive restructuring sessions targeting the rationalizations or "permission-giving statements" that the offenders use to justify their sexually abusive behaviors; (c) covert sensitization sessions aimed at disrupting the cycle of behaviors that precede the

offender's contact with the victim; (d) social skills training sessions that teach the adolescents the requisite skills to relate in an appropriate and comfortable manner with their peers; (e) sex education and values clarification sessions that provide education about appropriate sexual behavior; and (f) relapse prevention methods aimed at teaching the adolescents how to identify and cope with situations that might threaten their control of inappropriate sexual arousal.

The cognitive restructuring component of Becker's treatment program consists of four 75-minute group sessions held weekly. The sessions assist the participant in confronting his or her rationalizations about why it was okay to engage in deviant sexual behavior (e.g., "She seemed to enjoy it"). This may be done using role-playing techniques. For instance, a group member may role-play members of the victim's family, the victim, or criminal justice personnel, while the therapist role-plays the offender with the cognitive distortions. The group member must confront the beliefs presented by the therapist, and group members discuss the rationalizations used by the sexual aggressor to excuse or minimize the impact of the sexually aggressive behavior.

Follow-up data are available for Becker's treatment program. The preliminary data from one-year follow up interviews indicate that the program is effective, as measured by self-report and penile plethysmograph (Becker et al., 1988). One year post-treatment follow-up interviews were conducted with 55.9% (25) of the adolescents who had completed therapy and were available and, based on self-reports and referral information, it was determined that only 5 of the adolescents had recommitted sexual crimes. Becker (1998) also provided follow-up data on 80 adolescents, who were

followed in some cases for up to two years, and found that only 8% had sexually re-offended.

The Social Information-Processing Model of Aggression

Because the existing theoretical models of adolescent sex offending are not yet empirically validated, a more established cognitive model, Dodge's social-information model of aggression (Crick & Dodge, 1994; Dodge, 1980), will serve as a frame-work for examining cognitive distortions in adolescent female sex offenders. The social information-processing model of aggressive behavior posits that particular information-processing patterns contribute to and motivate aggressive acts. Healthy processing results in socially competent behavior, whereas deficient or biased processing leads to deviant social behavior and aggression. Children approach certain social situations with a database of memories of past social experiences, social schemas, and social knowledge, they then receive a set of social cues as input, and their behavioral response is a function of how they process those cues. The steps of processing include (1) encoding of external and internal cues, (2) interpretation of the encoded cues, (3) selection or clarification of goals, (4) response access or construction (generating possible strategies for responding to the immediate social situation), and (5) response decision (evaluating the generated strategies and selecting one for enactment). Research on this model has consistently shown that aggressive children process social cues differently than non-aggressive children, in ways that are likely to contribute to their behavioral difficulties (Crick & Dodge, 1996; Perry, Perry & Rasmussen, 1986; Slaby & Guerra, 1988). Thus, consistent with the clinical evidence of distorted cognitions among adolescent sexual offenders, the

social cognitive constructs of aggressive children tend to be biased (Crick & Dodge, 1996; Perry et al., 1986; Slaby & Guerra, 1988).

Before further examining this literature, attention to definitional issues is warranted. Studies examining social information-processing mechanisms in aggressive behavior tend to define aggression as the degree to which children are aggressive toward their peers. The commonly used index of aggression has been the extent to which children start fights, hit, push, or threaten peers, as determined by peer and/or teacher evaluations (e.g., Crick & Dodge, 1996; Dodge, 1980; Erdley, 1996; Perry et al., 1986). These indexes of aggression do not explicitly include sexual aggression. A less common approach is to establish the extent of aggressive behavior based on a review of criminal behavior history. For instance, Slaby and Guerra (1988) included group of adolescents incarcerated for having committed one or more violent acts (i.e., assault and battery, rape, attempted murder, murder). This taps into a portion of those adolescents who have committed sexually aggressive acts (i.e., the most serious portion) but groups them with other aggressive adolescents. Thus, the concept of aggression examined in the social information-processing literature does not necessarily include sexual aggression. Nevertheless, the social-information processing theory may be applicable to sexually aggressive adolescents and it can provide a framework for understanding and examining the clinical evidence of distorted cognitions in adolescent sex offenders.

Two general social information-processing patterns have been found to be characteristic of aggressive children. One pattern, commonly referred to as "the hostile attribution bias," occurs at the interpretation stage of information processing. When interpreting ambiguous provocation situations, aggressive children have a tendency to

perceive the other person as out to get them (i.e., exhibit a hostile attributional bias; Dodge, 1980; Dodge & Frame, 1982, Guerra & Slaby, 1989). This biased interpretation of a peer's behavior as intentionally harmful increases the aggressive child's tendency to respond in an aggressive manner because the aggressive response is viewed as justified retaliation or defense. This information-processing pattern is associated with a reactive aggressive style (i.e., an angry defensive response to frustration or provocation; Crick & Dodge, 1996). It is not clearly applicable to adolescent sexual offending because sex offending typically does not occur as a response to perceived provocation. The second pattern of social information-processing characteristic of aggressive children is associated with a proactive aggressive style (i.e., deliberate behavior that is controlled by external reinforcements; Crick & Dodge, 1996), which is more typical of sexual offending behavior than a reactive aggressive style. This second pattern of offending occurs at the response-decision stage of information processing. At the response-decision stage, children are faced with the task of evaluating and eventually selecting a response from the pool of previously generated responses (Crick & Dodge, 1994). Research by Dodge and colleagues has shown that certain social-cognitive constructs come into play at this stage, including: (a) self-efficacy beliefs -- assessment of the degree of confidence in one's ability to perform each response (e.g., "Am I good at doing this?"); (b) outcome expectations -- evaluation of the type of outcomes likely to ensue (e.g., "What would happen if I did this?"); and (c) response evaluation -- a moral evaluation of the content of each generated response (e.g., "Is this a good or a bad thing to do?").

Researchers often use hypothetical situation methodologies to study social-information processing patterns. In studies of children's response evaluations, subjects

evaluate possible responses to a hypothetical situation according to the dimension(s) of interest (e.g., whether a given response is justified). Similarly, in studies of children's outcome expectations, subjects are presented with various ways of responding to a situation presented in a vignette and asked to describe or evaluate what would happen if they responded in a particular way to the situation (e.g., "What would happen if you pushed a kid out of line?"). Research using the hypothetical situation methodologies provides consistent evidence that aggressive children exhibit biased cognitive processing at the response-decision stage (Crick & Dodge, 1996; Perry et al., 1986; Slaby & Guerra, 1988).

In their study of boys and girls age 9 to 12 years old, Crick and Dodge (1996) found that proactive aggressive children are more likely than other children to view aggression as justified. Crick and Dodge found that a group of proactive aggressive children, identified through teacher evaluations, exhibited a bias toward positive evaluation of aggression. Specifically, the proactive-aggressive children evaluated verbally and physically aggressive acts in significantly more positive ways than did children who were not proactively aggressive. These results are consistent with the idea that proactive aggression is controlled (and motivated) at least partly by the expectation of external rewards (Dodge & Coie, 1987).

Slaby and Guerra (1988) also found evidence of distorted thought patterns in aggressive adolescents. In their study of 15 to 18 year old adolescent boys and girls, Slaby and Guerra examined beliefs about the legitimacy of aggressive behavior across three groups: antisocial aggressive adolescent offenders, high-aggressive high-school students, and low-aggressive high-school students. They found that the violent

adolescent offenders endorsed significantly more beliefs supporting aggression than did the low-aggressive high-school students (e.g., "If someone gets beat up it's usually his or her own fault). The low-aggressive, high-aggressive, and antisocial-aggressive groups represented increasing levels of aggression that were consistently related to an increasing endorsement of non-normative beliefs about aggression (e.g., that aggression is justified). Slaby and Guerra also found some interesting sex differences on the cognitive factors associated with aggression; males were more likely than females to support positive beliefs regarding aggression, and females were more likely than males to hold the belief that victims deserved to be victimized. This study is particularly noteworthy because it extended the developmental scope of research on the social information-processing model of aggression. Previous to this study, researchers in the area had focused almost exclusively on preschool and elementary school children.

Finally, Perry et al. (1986) provide additional evidence for the role of biased cognitions in aggression. Perry et al. explored the relation between aggression and beliefs about the rewarding and punishing consequences of behaving aggressively in a sample of boys and girls in fourth through seventh grades. Perry et al. found that, compared to their less aggressive peers, aggressive children were more confident in their ability to aggress and held stronger beliefs that aggression produces positive outcomes (e.g., they were more likely to report that they take pride in behaving aggressively). Perry et al. also found that girls were far more likely than boys to expect the victims of their aggression to be hurt or injured. This is consistent with reports that girls have a stronger sense of empathy than boys (Hoffman, 1977).

These social-information processing studies suggest that children and adolescents' beliefs about aggression are related to their behavior. Children and adolescents who view aggressive behavior as justified or rewarding, or perceive that they can use aggression successfully, seem to be more likely to act aggressively. This empirical evidence, along with the conceptual framework provided by social-information processing theory, can enhance current understanding of sexual aggression in adolescents. The empirical evidence suggests that cognitive biases likely influence an adolescent's motivation to engage in sexually aggressive behavior, and the theoretical information illustrates how the biases may influence behavior. Another way in which this theoretical approach can add to adolescent sex offending literature is through its research methodology. Specifically, the types of measures commonly used to investigate social information-processing mechanisms (i.e., evaluation of hypothetical situations) can be used to investigate the cognitions of adolescent sex offenders.

Purpose of the Study

Taken together, the above evidence suggests a potentially important role for cognitive distortions as a precipitating or maintaining factor, or both, in sexually aggressive behavior. This study explored the possibility that adolescent females who engage in sexually aggressive behaviors also have distorted thoughts about their sexually aggressive behavior when compared to their peers. Using Dodge's social information-processing model (Crick & Dodge, 1994; Dodge, 1980) as a framework, the proposed study examined the differences in the cognitions exhibited by a group of sexually aggressive adolescent girls, a group of physically aggressive adolescent girls with no

histories of sexually aggressive behavior, and a group of adolescent girls from the community with no histories of sexual or physical aggression.

The cognitive processes were measured primarily through participants' judgements of vignettes describing inappropriate sexual contact between an adolescent girl and a young boy. The vignettes varied with respect to the amount of sexual contact as well as the victim's response to the contact. For each vignette, participants were asked several questions designed to tap into their perceptions of benefit or harm to the victim, victim complicity or consent to the act, and the offender's responsibility for the behavior. Another psychometric measure designed to assess sex offense related beliefs was also used, along with a measure of beliefs about physical aggression taken from the social-information processing literature. In order to increase general knowledge of this population of sex offenders, ancillary measures were also included that provided indexes of (a) sexual knowledge, behaviors, attitudes, and values and (b) emotional and behavioral problems. In addition, for the sexually aggressive and physically aggressive girls data regarding psychosocial history was collected through a retrospective file review.

Research Hypotheses

Hypothesis one. Participants will exhibit similar levels of desire to respond in a socially appropriate way, regardless of group membership.

Hypothesis two. Responses to the vignettes describing the sexual interaction will cluster into three factors: Benefit to Victim, Victim Complicity, and Offender Responsibility. The independent variables measuring perceptions of victim enjoyment, harm experienced by the victim, and benefit to the victim will cluster together to form the

Benefit to Victim factor. The independent variables measuring perceptions of victim responsibility and victim intent will cluster together to form the Victim Complicity factor. The independent variable measuring perceptions of offender responsibility will not be related to the other five independent variables and, thus, will form a separate Offender Responsibility factor.

Hypothesis three. There will be a main effect such that the sexually-aggressive group will perceive the sexual interaction described in the vignettes as more beneficial to the victim than either the non-aggressive or the physically-aggressive groups. There also will be an interaction with the level of sexual contact such that the non-aggressive and physically-aggressive groups will perceive the sexual interaction as less beneficial to the victim at the more serious levels of sexual contact, whereas the sexually-aggressive group will perceive the experience as more similar across the different types of sexual contact. Last, there also will be an interaction with the level of victim response such that the non-aggressive and physically-aggressive groups will perceive the victim as benefiting less when the victim responds more negatively, for instance by crying, whereas the sexually-aggressive group will perceive the experience as more similar across the different types of victim responses.

Hypothesis four. There will be a main effect such that the sexually-aggressive group will perceive the victim as more complicit in the sexual interaction describe in the vignettes than either the non-aggressive or the physically-aggressive groups. There also will be an interaction with type of victim response such that the sexually-aggressive-group's perceptions of victim complicity will increase as the victim's response becomes more positive. In contrast, both the non-aggressive and the physically-aggressive groups'

perceptions will be more similar across the types of victim response and they will be less likely to perceive the victim as complicit in the interaction even when the victim responds positively.

Hypothesis five. There will be a main effect for offender responsibility such that the sexually-aggressive group will perceive the adolescent female initiating the sexual contact described in the vignettes as less responsible for the interaction than the non-aggressive and the physically-aggressive groups.

Hypothesis six. In comparison to both the non-aggressives and the physically-aggressive groups, the sexually-aggressive group will exhibit more distorted thoughts about sexual interactions on the measures of sex offender's cognitions and attitudes about sex. For instance, they will be more likely to minimize the severity of harm to a victim of sexual abuse, and more likely to indicate that it is permissible to engage in sexually aggressive behaviors.

Hypothesis seven. The sexually-aggressive group will exhibit more cognitive distortions about and beliefs supporting physically aggressive behaviors than the physically-aggressive or non-aggressive groups.

Hypothesis eight. The sexually-aggressive group will exhibit differences with respect to attitudes about sexual activity and their sexual behaviors than the physically-aggressive and non-aggressive groups. Specifically, compared to the physically aggressive and non-aggressive groups, the sexually-aggressive group will exhibit less conservative attitudes with respect to sexuality (e.g., attitudes about premarital intercourse, attitudes about birth control) and lower level skills related to sexual

behaviors (e.g., comfort talking about sex, sexual decision making skills, comfort with current sexual behavior).

Hypothesis nine. The sexually-aggressive group will exhibit more psychopathology, as measured by a self-report, than the physically-aggressive and non-aggressive groups.

CHAPTER 2

METHOD

Participants

Participants were 44 adolescent females, ages 12 to 18 years. Eleven participants had histories of sexually aggressive behaviors (SA group); 12 had histories of physically aggressive behaviors with no histories of sexually aggressive behaviors (PA group); and 21 had no history of sexually or physically aggressive behaviors (NA group). The average age of the SA, PA, and NA groups was 15.27 years (SD = 1.10), 15.42 years (SD = 1.31), and 15.05 years (SD = 1.47), respectively.

The SA and PA groups were recruited from the Maine Department of Corrections and from various residential treatment programs for girls with emotional and behavioral problems. Participants were identified by Department of Corrections or treatment center staff as appropriate for the study if they had a documented history of sexually or physically aggressive behavior. Those identified as appropriate, who had parent or guardian consent and agreed to participate, were included in the study. Participants recruited from the Department of Corrections were either incarcerated in the Maine Youth Center (n = 7) or on probation (n = 2) relating to a sexual offense (SA group) or a non-sexual victim-involved offense (PA group). Participants recruited from residential

treatment centers (n = 14) were in treatment at one of three residential treatment centers with specialized treatment programs for physically and sexually-aggressive girls: the Germaine Lawrence School, located in Arlington, Massachusetts, Sweetser Children's Services, located in Saco, Maine, and the Spurwink School, located in Portland, Maine. Of the 11 SA participants, one was recruited from adolescent probation, one from the Maine Youth Center, seven from Germaine Lawrence, and two from Sweetser. Of the 12 PA participants, one was recruited from adolescent probation, six from the Maine Youth Center, four from Germaine Lawrence, and one from Spurwink.

Seven of the eleven SA participants had past charges relating to their sexually aggressive behavior: two had charges of unlawful sexual contact, three gross sexual assault, one both unlawful sexual contact and gross sexual assault, and one both unlawful sexual contact and criminal threatening. One of the SA participants had an unrelated physical assault charge in addition to a charge of unlawful sexual contact. Ten of the twelve PA participants had past charges relating to their physically aggressive behavior: four had charges of assault, five criminal threatening, and one terrorizing. The four SA participants and two PA participants who did not have past charges relating to sexually or physically aggressive behaviors had documented histories of sexual or physical aggression and had been expressly referred to one of the various residential programs for treatment of the sexual or physical aggression.

The NA group was recruited from the community surrounding the University of Maine. Fourteen of the twelve NA participants were recruited through the University of Maine faculty and staff, via letters people describing the study, which were sent to all faculty and staff. Seven NA participants were recruited from a teen group at a local

church group. NA participants were screened for histories of sexually and physically aggressive behaviors and for past histories of victim-related criminal charges based on their self-report (see Appendix ?). Two girls who agreed to participate were not included in the final NA group based on their self-report of past aggressive and/or criminal behaviors.

An ANOVA conducted to examine age differences between the three groups did not reveal any significant differences in age, $F(2, 41) = .307$, $p = .73$, $\eta^2 = .01$. The groups also were generally similar with respect to race. The majority of the participants for the three groups were Caucasian, with the exception of 2 African American participants in the SA group (18%), 1 African American participant in the PA group (8%), and 1 African American in the NA group (5%). There were some important differences between the groups on several factors. First, although all participants had reading abilities, as measured by the WRAT3, at the 6th grade level or better, there were significant group differences on WRAT3 standard reading ability scores, $F(2, 41) = 7.37$, $p < .05$, $\eta^2 = .26$. Tukey's post-hoc comparisons revealed that the NA group had significantly higher reading ability standard scores ($M = 108.98$, $SD = 6.61$) than both the SA ($M = 99.09$, $SD = 10.09$) and PA groups ($M = 100.58$, $SD = 7.74$), $ps < .05$, suggesting a higher level of education for the NA group compared to the PA and SA groups. Second, an ANOVA examining parents' occupation, as classified in accordance with the Hollingshed Occupational Scale (Hollingshed, 1975), revealed a significant group difference with respect to parental occupation, $F(2, 41) = 7.77$, $p < .05$, $\eta^2 = .30$. Tukey's post-hoc comparisons indicated that the parents' of NA participants had significantly higher-level occupations than both the parents of the SA and PA

participants, ps < .05, suggesting a higher socio-economic status for the NA group compared to the PA and SA groups. Third, the PA and SA groups came from a wider geographic region than the NA group. All 21 of the NA participants were from Maine, whereas 6 SA and 9 PA participants were from Maine, 2 SA and 2 PA were from Massachusetts, 2 SA and 1 PA were from New Hampshire, and 1 SA was from Vermont.

Questionnaires

Test of reading ability. The reading test of the Wide Range Achievement Test-Third Edition (WRAT3; copywrited material; Wilkinson, 1993) is a measure designed to determine level of reading ability. For the reading test, participants were asked to read 42 words, in order of increasing difficulty. Grade equivalence of reading ability was determined based on the number of words pronounced correctly. The WRAT3 has been normed on 5,000 people nationwide representing age groups from 5 to 75 years and appears to have adequate psychometric properties. Psychometric analyses indicate that the reading test demonstrates internal consistency (coefficient alpha = .91), test-retest reliability (correlation = .98), content validity (Rasch statistic of item separation = 1.0), concurrent validity (correlations of .66 and .70 with the WISC-III Full Scale and Verbal Scale Scores, respectively), and discriminant validity (the reading test can significantly discriminate between normal, gifted, learning disabled, and mentally handicapped individuals at a 68% level).

Measure of social desirability. The Marlowe-Crowne Social Desirability Scale-Short Form C (Marlow-Crowne; see Appendix A) is a 13-item questionnaire designed to measure social desirability (Reynolds, 1982). The 13-item Marlow-Crowne Short Form C is a shortened version of the original 33-item questionnaire, which was first developed

by Crowne and Marlowe (1960). The scale contains items describing culturally approved behaviors with low probability of occurrence. As originally developed, the scale required that respondents answer true or false to each item; however, for this study, the true-false format was changed to a 1 (really disagree) to 5 (really agree) Likert-type scale format to allow for more variability in responses. The scale is generally used in conjunction with other self-report measures to control for socially desirable response tendencies.

Marlowe and Crowne (1964) demonstrated the validity of the original 33-item scale by relating it to various behavioral situations. Other studies of the psychometric properties of the scale demonstrate that it has high internal consistency, with alpha coefficients ranging from .80 to .88, and high test-retest reliability, with reliability coefficients ranging from .86 to .89 (Crino, Svoboda, Rubenfeld, & White, 1983). Reynolds (1982) tested the shortened 13-item Form C on 608 undergraduate students and found that it had acceptable reliability (reliability coefficient = .76) and correlated highly with the original full-length scale (correlation coefficient = .93).

Sexual contact vignettes. The sexual contact vignettes (Vignettes; see Appendix B) were developed by the principal investigator to provide a direct measure of cognitions and beliefs about sexually inappropriate behavior. The Vignettes questionnaire contains twelve short case descriptions of inappropriate sexual contact between an adolescent girl and a younger boy. It was developed based on a similar questionnaire used by Stermac and Segal (1989) to measure cognitions of adult male sex offenders. Stermac and Segal's questionnaire contained scenarios depicting inappropriate sexual contact between an adult male and a child. The scenarios for this study, which were drawn from reports of actual incidents of inappropriate sexual offending by adolescent girls, depict an

adolescent girl engaging in inappropriate sexual activities with a younger boy. Beyond the actual scenarios, the format of the Vignettes questionnaire is the same as that of Stermac and Segal's questionnaire, with the same two independent factors, and the same six questions following each vignette.

The Vignettes questionnaire contains two independent factors that vary within each scenario: the degree of sexual contact portrayed in each scene (i.e., type of Sexual Contact) and the victim's response to the sexual contact (i.e., type of Victim Response). The four types of sexual contact of are: (1) touching only, (2) rubbing genital area over clothing, (3) fondling and undressing, and (4) intercourse. The three types of the victim response are: (1) smiling, (2) neutral/no response, and (3) crying with resistance. Stermac and Segal (1989) determined the face validity of their case descriptions and the varying types of sexual contact and victim responses by presenting the various scenarios to eight subjects in a pilot study. The subjects were male inpatients convicted of sexual assault against children ($\underline{n} = 2$), male clinicians ($\underline{n} = 2$), female secretaries ($\underline{n} = 2$), and female lay-persons ($\underline{n} = 2$). The eight participants rank ordered the vignettes in terms of degree of sexual contact and, using multiple choice, indicated the child's response.

For each of the twelve scenarios, participants are asked to answer six accompanying questions, using a five point-Likert type scale ranging from 1 (not at all) to 5 (definitely), that probe their perceptions and opinions regarding the inappropriate sexual contact described in the vignette. Stermac and Segal (1989) designed the six questions to reflect the central cognitive dimensions and beliefs about adult sexual contact with children that had been identified through previous clinical investigations of child molesters, including beliefs about beneficial aspects of contact, victim harm, and

offender responsibility (Abel et al., 1984; Stermac & Segal, 1987). The six questions are: (1) Do you think the child enjoyed what happened? (2) Do you think the child wanted this to happen? (3) Do you think the child could benefit from this experience? (4) Do you think the child was responsible for what happened? (5) Do you think the child could be harmed by this experience? (6) Do you think the offender was responsible for what happened?

Stermac and Segal (1989) used their questionnaire in a comparison study of the following six groups (N=186): child molesters (n = 20); rapists (n = 17); male and female mental health clinicians (n = 35); male and female community laypersons of high (n=53) and low (n=20) socioeconomic status with no psychiatric or criminal histories; male and female criminal lawyers (n = 20); and male and female police officers (n = 21). A Pearson correlation matrix for each of the six dependent variables revealed that perceptions of victim benefit, victim harm, and victim enjoyment were highly correlated across all levels of child's response and degree of sexual contact (coefficient alphas ranged from .32 to .65), and perceptions of victim responsibility and victim desire were highly positively correlated (coefficient alphas ranged from .37 to .71). Two composite variables were formed based on these correlations: the composite "Benefit to Victim" was created from the individual variables of victim enjoyment, victim harm and victim benefit; and the composite variable "Victim Complicity" was created from the individual variables of victim responsibility and intention. Thus, Stermac and Segal's analyses included three dependent variables: the composite variable Benefit to Victim, the composite variable Victim Complicity, and the individual variable Offender Responsibility.

Stermac and Segal's (1989) questionnaire was able to effectively discriminate between the child molesters and the five comparison groups, including the rapists on the dependent variables of Benefit to Victim ($p<.001$), Victim Complicity ($p<.001$), and Offender Responsibility ($p<.001$). In contrast, the five comparison groups did not differ significantly on any of these three dependent variables. The authors also found that vignettes questionnaire was not confounded by social desirability. Examination of the correlations between responses to the vignettes and scores on the Marlow-Crowne scale of social desirability (Crowne & Marlowe, 1960) for all groups revealed few significant correlations. The questionnaire developed by Stermac and Segal clearly holds promise as a method of measuring the cognitive distortions of sex offenders, unfortunately, no other reports in the published literature have used the questionnaire.

Adolescent Cognition Scale. The Adolescent Cognition Scale – Revised (ACS; see Appendix C) is a 32-item scale true-false questionnaire developed to assess the minimizations and justifications that adolescent sex offenders use to excuse their behaviors (Abel et al., 1989). It was included in this study as an additional measure of cognitions about sexual offending. The ACS is a 32-item true-false questionnaire developed to assess the minimizations and justifications that adolescent sex offenders use to excuse their behaviors. The respondent must either endorse or reject questions pertaining to their sexual attitudes, behaviors, or values. Becker and Kaplan (1988) first developed the Adolescent Cognition Scale for adolescent male sex offenders based on a similar scale, the Abel Cognitions Scale (Abel et al., 1984), for adult male sex offenders. The principal investigator of this study further altered the scale for use with adolescent

female sex offenders. Given the alterations made for this study, the following findings regarding reliability and validity should be interpreted with caution.

The original Abel Cognition Scale for adults was rationally derived by Abel and colleagues based on their extensive experience evaluating child molesters. Studies on the psychometric characteristics of the Abel Cognitions Scale have shown that the overall scale has adequate test re-test reliability (Abel et al., 1989; Hayashino et al., 1995; Stermac & Segal, 1987), and can discriminate between child molesters, rapists, and normal controls (Stermac & Segal, 1989).

The ACS version for adolescent males has demonstrated adequate reliability and internal consistency. Hunter et al. (1991) administered the scale to 37 adolescent sex offenders on consecutive days and obtained a significant phi correlation coefficient of .68 ($p < .001$) between initial and post-tests for total number of distortions endorsed. Hunter and colleagues also found that Cronbach's alpha tests of internal consistency yielded a standardized item alpha of .45 ($p < .05$) for the initial test, and .71 ($p < .05$) for the post-test. Evidence for the scale's discriminant validity is mixed. Abel et al. found (1984) that the scale differentiated adolescent sex offenders from a control group. In contrast, Hunter and colleagues found that the ACS lacked the ability to differentiate adolescent sex offenders from a matched control group ($n = 22$ for each group) using the Chi Square statistic.

Beliefs Measure. The Beliefs Measure (BM; see Appendix D) is an 18-item scale designed to measure beliefs about the appropriateness of general aggression (Slaby & Guerra, 1988). Slaby and Guerra developed the Beliefs Measure for their study on beliefs about the aggression in 15 to 18 year old adolescents. The BM contains a list of

statements depicting beliefs supporting aggression. As originally developed, the BM required that respondents answer true or false to each item; however, for this study, the true-false format was changed to a 1 (really disagree) to 5 (really agree) Likert-type scale format to allow for more variability in responses. The BM provides indexes of the following five beliefs supporting aggression: aggression is legitimate (n = 6 items), aggression increases self-esteem (n = 3), aggression helps to avoid a negative image (n = 3), victims deserve it (n = 3), and victims do not suffer (n = 3).

Slaby and Guerra (1988) reported on the measure's psychometric properties. In their study on 144 adolescents, the BM differentiated adolescents who were highly aggressive from their non-aggressive counterparts. Cronbach's alpha coefficients ranged from .53 to .72 on each of the scales except "Victims don't suffer," which had an alpha of .37. Using a different sample of 66 delinquent adolescents, the BM evidenced test-retest reliability over 10-week test-retest period (Kendall's r = .86).

Child Behavior Checklist Youth Self-Report Form. The Child Behavior Checklist Youth Self-Report Form (CBCL; copywrited material, Achenbach, 1991) is a broad-band rating scale assessment for childhood psychopathology that was originally developed by Achenbach and Edelbroch (1987), and subsequently revised in 1991 (Achenbach, 1991). The CBCL was normed on 1,315 children ages 11 to 18 years. The scale consists of 6 items that assess social competencies and 112 items that assess various behavior problems.

The Competence items are grouped into an Activities scale and a Social Competence scale. The two scales were rationally developed based on their content. A

single item reflecting performance in at least three academic subjects is combined with the Activities and Social Competence scales to form the Total Competence Score.

The Problem items are grouped into seven core syndrome scales: Somatic Complaints, Anxious/Depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Behaviors, Aggressive Behavior. An additional core syndrome scale, Self-Destructive/Identity Problems, is used for boys only. The cluster of items that make up each syndrome scale were empirically derived through principal components analyses of the correlations among the items. Separate analyses were conducted for each gender on clinical samples of 709 boys and 563 girls and the syndrome scales were constructed from items found in the syndrome clusters for both sexes. Some of the syndrome scales are grouped together as "Internalizing" (i.e., Withdrawal, Somatic Complaints, Anxious Depressed) and "Externalizing" (i.e., Delinquent Behavior, Aggressive Behavior) based on factor analyses of the eight syndrome scales.

The CBCL demonstrates adequate psychometric properties. Achenbach (1991) reported on the scale's reliability (test-retest reliabilities and internal consistency) and validity (content and construct validity). Test-retest correlations at 1 week are .80 on the total Competence scale, and .79 on the Total Problems scale. Cronbach's alphas for the syndrome scales range from .59 to .89, with an alpha of .95 for the Total Problems scale. The alphas for the Activities scale, the Social scale, and the Total Competence scale range from .38 to .57. Nearly all of the problem items of the CBCL are able to discriminate significantly between demographically matched referred and nonreferred youth. Finally, criterion-related validity is supported by results of multiple regressions of the CBCL's quantitative scale scores on referral status, which revealed that scale scores

significantly discriminate between referred and nonreferred youths when the demographic effects are partialled out.

Mathtech Questionnaires. The Mathtech Questionnaires are designed to measure the most important knowledge areas, attitudes, values, skills, and behaviors that facilitate a positive and fulfilling sexuality (Kirby, 1984). The questionnaires were originally developed as an evaluation tool for sexuality education programs. For their development, more than 100 possible outcomes of sexuality education programs were identified, then 100 professionals rated each of those outcomes according to its importance in reducing unintended pregnancy and facilitating a positive and fulfilling sexuality. Three questionnaires, the Knowledge Test, the Attitude and Value Inventory (Mathtech AV; see Appendix E), and the Behavior Inventory (Mathtech B; see Appendix F) were then developed to measure the most important outcomes. The Mathtech AV and the Mathtech B questionnaires were included in this study.

The Mathtech AV is a 70-item questionnaire that contains 14 different scales, each consisting of five statements regarding attitudes and values about sex, and respondents indicate the degree to which they agree or disagree on a five-point Likert-type scale. The items for the Mathtech AV were developed based on the content areas considered important by the 100 professionals. The scale was then refined based on feedback from small groups of adolescents and two psychologists. The refined scale was then administered to 200 adolescents and those items that correlated more than .30 with the Marlowe-Crowne scale of social desirability (Crowne & Marlowe, 1960), had the lowest factor loadings on each factor or scale, and had mean scores near the minimum or maximum possible score were removed. Internal consistency of the Mathtech AV was

established using a sample of 990 students, with Cronbach's alphas for 12 of the 14 scales ranging from .70 to .89, with two scales having lower alphas (.58 and .66).

The Mathtech B measures three aspects of behaviors related to sexual activities: the skill with which the behavior is completed, comfort level while engaging the behavior, and frequency of the behavior. The skills questions use 5-point scales (ranging from "almost always" to "almost never"), the comfort questions use 4-point scales (ranging from "comfortable" to "very uncomfortable"), and frequency questions ask how many times during the previous month the respondent engaged in the activity. The items for the Mathtech B were developed based on the content areas considered important by the 100 professionals. The inventory was then reviewed by two psychologists for clarity, unidimensionality, and comprehensibility. Tests of test-retest reliability over a two-week period, using a sample of 541 students, revealed reliability coefficients ranging from .62 to .83 for nine of the thirteen scales, with four scales obtaining lower coefficients ranging from .38 to .57. Tests of internal consistency on the same sample yielded Chronbach's alphas of .58 to .86.

File Review

For the SA and PA groups, data describing psychosocial histories were collected through retrospective reviews of Department of Corrections and treatment center records (see Appendix G for a list of file review variables). These records contained demographic data, details of problem behaviors and criminal or sexual offense history (if any), clinical assessments, and treatment information. The principal investigator has been trained in coding of data files as part of a large-scale retrospective survey study on adolescent sexual offending (Righthand, 2000).

Procedure

All participants had parent or guardian consent to participate in the study (see Appendix H for NA group consent form; see Appendix I for SA and PA group consent form). The questionnaire session began by the principal investigator meeting with each participant individually to obtain her assent to participate (see Appendix J for NA group assent script; see Appendix K for SA and PA group assent script). The primary investigator then administered the WRAT3 reading test to establish adequate reading ability, after which participants completed the seven questionnaires described above. Questionnaires were presented in randomized order to control for order effects. In addition to the questionnaires listed above, all participants filled in a background information form, which asked for basic background information such as parental marital and employment status (see Appendix L). In addition, the NA participants filled out a screening questionnaire designed to screen out girl from the community with histories of physically or sexually aggressive behaviors or with past criminal charges (see Appendix M). Following completion of the questionnaires, the participants were paid $15 for the time that it took them to complete the questionnaires, thanked for their participation, and debriefed (see Appendix N for NA group debriefing statement; see Appendix O for SA and PA group debriefing statement).

CHAPTER 3

RESULTS

Statistical Design and Analyses

All data analyses were conducted with SPSS statistical software (SPSS, 1990). Data were analyzed using Univariate Analyses of Variance (ANOVAs) or Multivariate Analyses of Variance (MANOVAs), with significant effects broken down using standard procedures (i.e., one-way ANOVAs, Pairwise Comparisons, Tukey's HSD post-hoc procedure). Independent variables were Group (i.e., SA, PA, and NA) and, for the analyses of the vignettes, Level of Sexual Contact (i.e., Touch, Rub, Fondle, Intercourse) and Victim Response (i.e., Smile, Neutral, Cry).

The alpha level for this study is fixed at .10 to allow for increased power to detect group differences (i.e., decrease the likelihood of Type II errors). Kazdin (1998) suggests that, when there are inherent constraints in sample size due to lack of availability of clinical populations with the characteristics of interest, such as in this study, altering alpha is a reasonable way to evaluate predicted differences between groups. The clinical populations of interest in this study, particularly the girls who have had problems with sexually aggressive behavior, have a low base rate in the population. Beyond the low base rate, access to this population was further constrained due to the difficulties of obtaining consent to do research with minors, particularly minors in state custody, as were many of the girls in this study. In an effort to obtain a larger sample size for this study, sampling was extended to a relatively wide geographical region (i.e., greater New England), and data was collected from various sites for over one year. Despite these

efforts, the sample size remains relatively small. Thus, in accordance with Kazdin's suggestions, alpha was set higher than the traditional .05.

To provide the most complete information for each analysis, a measure of magnitude of effect (i.e., eta squared: η^2) is reported, in addition to the standard indication of statistical significance (i.e., F and p values). This method of presenting outcome data has been suggested as more complete than referencing effect sizes or significance tests in isolation (Haase, Ellis, & Ladany, 1989). With regard to indexing the magnitude of effects, Cohen (1988) has suggested the following parameters: $\eta^2 = .01$, small effect; $\eta^2 = .06$, medium effect; and $\eta^2 = .14$, large effect.

Results are presented in three sections: (a) the "Primary Analyses" section presents analyses of measures relating to the focus of the study, examination of cognitive distortions; (b) the "Ancillary Analyses" section presents analyses of exploratory measures designed to provide more general information about sexually-aggressive girls (e.g., attitudes about sex, psychopathology); and (c) the "File Review" section presents results of comparisons of SA and PA groups only with respect to general background information (e.g., offense history) collected through retrospective file review. For the primary analyses of measures designed to test theoretical hypotheses, pairwise comparisons were used to investigate simple effects for hypothesized main effects and interactions. In contrast, for the exploratory, ancillary analyses, the more conservative Tukey's post hoc procedure is used for examination of all simple effects.

Testing the Hypotheses

Social Desirability (Hypothesis One)

A one-way ANOVA was conducted to examine the hypothesis that scores on the Marlow-Crowne scale, a measure of social desirability, would be similar across the three groups. Given that no differences were expected, alpha was set at .25 for this analysis. The results of the ANOVA revealed no differences between the three groups, $F(2, 41) = .26$, $p = .77$, $\eta^2 = .01$ (see Table 1).

Table 1.

Mean Marlowe-Crowne Scale Scores

	M	SD
SA Group	38.43	1.86
PA Group	40.00	2.57
NA Group	40.50	2.46

Correlations Among Vignettes Dependent Variables (Hypothesis Two)

In order to examine the relationships among the six beliefs measured by the Vignettes (i.e., Victim Enjoyed It, Victim Want It, Victim Benefited, Victim Is Responsible, Victim Was Not Harmed, Offender Was Not Responsible), Pearson r correlations were computed. For each of the six beliefs, scores were averaged over the 12 scenarios.

As predicted, the belief Offender Not Responsible showed little correlation with the other five beliefs, Pearson rs range from .02 to .15. However, the remaining five victim-related beliefs (i.e., Victim Enjoyed It, Victim Wanted It, Victim Benefited, Victim Is Responsible, Victim Was Not Harmed) did not cluster into two distinct factors

as hypothesized. Instead, each of the five beliefs were significantly correlated, $p < .05$, with Pearson r's ranging from .31 to .85 (see Table 2). The beliefs Victim Wanted It and Victim Enjoyed It, which were hypothesized to be part of the two separate factors, showed the strongest correlation, $r = .85$. On the basis of these findings, rather than form two composite variables from the five victim-related beliefs, one composite variable, called the Distortions About Victim, was formed. Thus, rather than analyze the Vignettes with three dependent variables, as had been proposed, two dependent variables were included in the analyses: the individual variable Offender Related Distortions (i.e., Offender Not Responsible belief) and the composite variable Victim Related Distortions.

Table 2.

Correlations Between the Six Dependent Variables on the Vignettes

	Victim Enjoyed It	Victim Wanted It	Victim Benefited	Victim Is Responsible	Victim Not Harmed	Offender Not Responsible
Victim Enjoyed It	---	.85**	.40**	.48**	.43**	.03
Victim Wanted It		---	.53**	.58**	.31*	.02
Victim Benefited			---	.37*	.33*	.02
Victim Is Responsible				---	.38*	.02
Victim Not Harmed					---	.15
Offender Not Responsible						---

Notes * $p < .05$; ** $p < .01$

Primary Analyses Relating to Cognitive Distortions

Vignettes (Hypotheses Three – Five)

Two mixed-design ANOVAs (i.e., Group [SA, PA, NA] x Victim Response [one to three] x Sexual Contact Type [one to four]) were conducted to consider Group differences in distorted cognitions about the offender and distorted cognitions about the victim (e.g., the victim wanted it to happen, the victim "deserved it," the victim was responsible).

Dependent variables were the composite variable Victim Related Distortions and the individual variable Offender Related Distortions. Scores on the Victim Related Distortions ranged from 5 to 25, and scores on the Offender Related Distortions variable ranged from 1 to 5. Higher scores reflected greater distorted thoughts. The between-groups factor was Group (i.e., SA, PA, NA), and the within-subjects factors were level of Victim Response as described in the Vignettes (i.e., Cry, Neutral, Smile) and level of Sexual Contact as described in the Vignettes (i.e., Touch, Rub, Fondle, Intercourse).

Victim related distortions. Hypotheses three and four as originally stated related to two separate hypothesized factors, Benefit to Victim and Victim Complicity. As the variables hypothesized to make up those two factors were combined to form the composite variable Victim Related Distortions, hypotheses three and four were tested on the Victim Related Distortions variable. Both hypotheses predicted a Group main effect and Group by Victim Response interaction. Hypothesis three also predicted a Group by Sexual Contact interaction.

The ANOVA for the Victim Related Distortions revealed a significant Group by Victim Response by Sexual Contact interaction (see Figure 1), and a trend towards a

significant Group by Victim Response interaction, F (12, 146) = 2.63, p < .01, η^2 = .11; F (4, 62) = 1.94, p = .11, η^2 = .09, respectively. The means for the Group main effects were in the predicted direction such that the SA group had the highest mean rating for the Victim Related Distortions (SA: M = 9.61, SD = .84; PA: M = 8.49, SD = .80; NA: M = 8.69, SD = .61). However, contrary to predictions, the Group main effect and the Group by Sexual Contact interaction for the Victim Related Distortions were not significant, F (2,41) = .547, p = .58, η^2 = .03; F (6, 123) = 4.89, p = .75, η^2 = .04, respectively.

Table 3.

Mean Victim Related Distortions Scores

	Level of Sexual Contact			
	Touch	Rub	Fondle	Intercourse
	M (SD)	M (SD)	M (SD)	M (SD)
Cry Victim Response				
SA Group	6.36 (.42)	6.91 (.63)	10.54 (1.68)	5.67 (.45)
PA Group	5.33 (.41)	5.25 (.60)	5.42 (1.61)	8.00 (.62)
NA Group	5.71 (.31)	6.09 (.45)	6.19 (1.22)	5.67 (.59)
Neutral Victim Response				
SA Group	8.91 (.76)	8.82 (1.03)	8.36 (.91)	10.54 (1.09)
PA Group	6.58 (.73)	7.75 (.99)	7.17 (.87)	8.25 (1.05)
NA Group	7.62 (.55)	8.52 (.75)	7.00 (.66)	8.90 (.79)
Smile Victim Response				
SA Group	11.18 (1.14)	10.82 (1.39)	11.82 (1.47)	11.45 (1.48)
PA Group	10.08 (1.09)	12.67 (1.33)	13.75 (1.40)	12.58 (1.42)
NA Group	10.29 (.83)	12.19 (1.01)	12.29 (1.06)	12.38 (1.07)

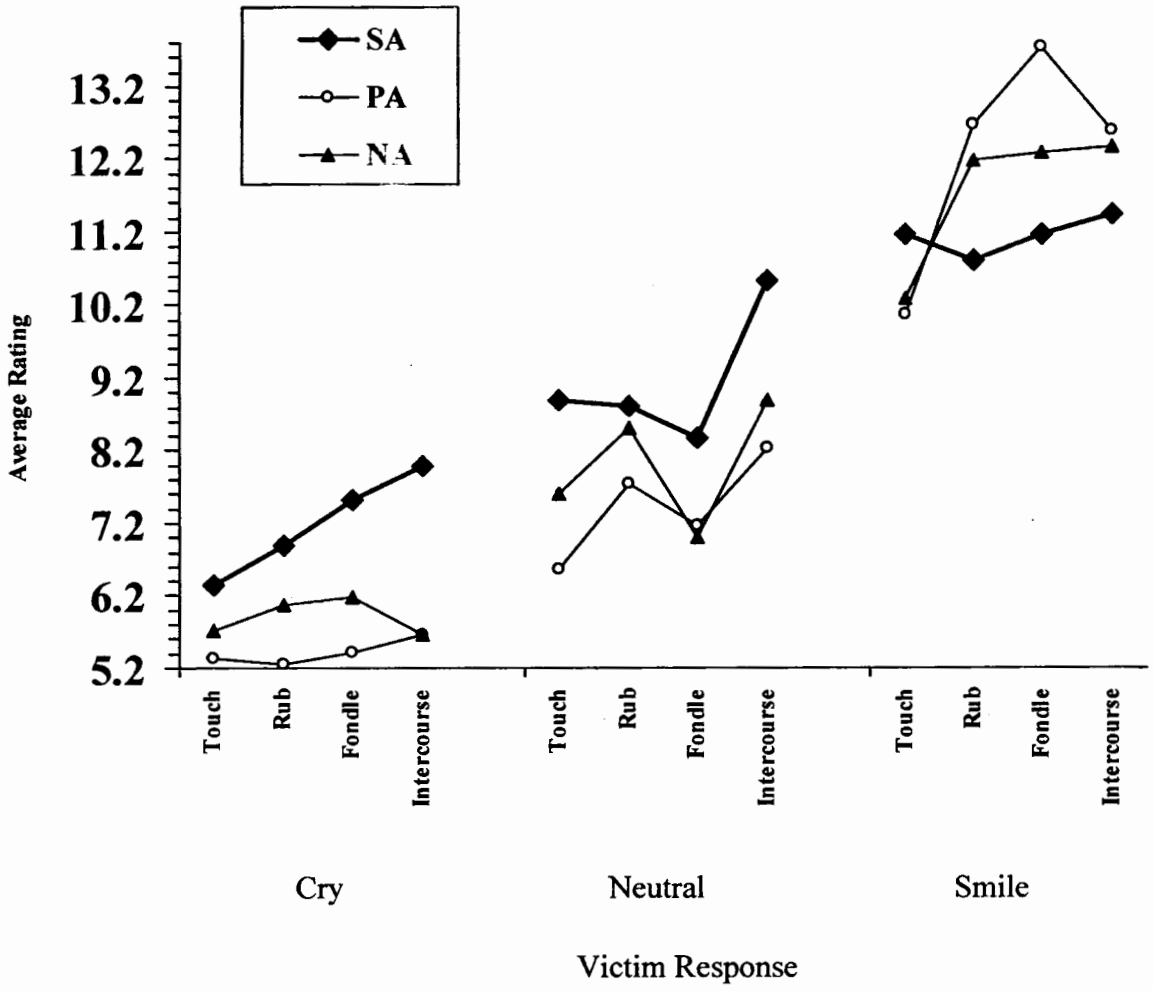

Figure 1. Three-Way Group by Level of Victim Response by Level of Sexual Contact Interaction for Victim Related Distortions.

The significant three-way Group by Victim Response by Sexual Contact interaction for the Victim Related Distortions was further explicated by examining the Group by Sexual Contact interaction within each level of Victim Response (i.e., Smile, Neutral, Cry). See Table 3 for mean scores at each level of Victim Response and level of Sexual Contact. A follow-up ANOVA at the Cry level of response revealed significant Group by Sexual Contact interaction, F (6, 123) = 2.78, $p < .05$, $\eta^2 = .12$. Follow-up one-way ANOVAs followed by Tukey's post-hoc comparisons revealed significant simple effects at the two higher levels of contact. There was a simple effect when the level of contact was Fondle, F (2, 41) = 2.86, $p < .10$, $\eta^2 = .12$, such that the SA group exhibited significantly greater victim-related distortions than both the PA and NA groups ($ps <$ .10). There also was a significant interaction at the Cry response when the level of contact was Intercourse, F (2, 41) = 5.31, $p < .01$, $\eta^2 = .21$. The SA group exhibited significantly greater distortions about the victim at the Intercourse level of contact than both the PA and NA groups, $ps < .05$. Group by Sexual Contact interactions at the Cry level of response were not significant when the levels of contact were Touch or Rub, F (2, 41) = 1.57, $p = .22$, $\eta^2 = .07$; F (2, 41) = 1.83, $p = .17$, $\eta^2 = .08$, respectively. The means for the SA group were in the predicted direction such that the SA group had the highest Victim Related Distortions scores at the Touch and Rub levels of contact.

The follow-up ANOVA at the Smile level of response revealed a significant Group by Sexual Contact interaction, F (6, 123) = 2.42, $p < .05$, $\eta^2 = .11$. Nevertheless, follow-up one-way ANOVAs revealed no significant group differences at the Touch, Rub, Fondle, or Intercourse levels of contact, F (2,41) = .28, $p = .76$, $\eta^2 = .01$; F (2,41) =

.50, $p = .61$, $\eta^2 = .02$, $F(2,41) = .81$, $p = .45$, $\eta^2 = .04$; $F(2,41) = .18$, $p = .84$, $\eta^2 = .01$, respectively. The means were in the predicted direction only at the Touch level of contact; at the three higher levels of contact the SA group had the lowest scores for Victim Related Distortions.

The follow-up ANOVA at the Neutral level of response revealed no Group by Sexual Contact interaction, $F(6, 123) = .75$, $p = .56$, $\eta^2 = .04$. Nevertheless, the means for the SA group were in the predicted direction such that the SA group had the highest scores for Victim Related Distortions across each level of contact.

In sum, examination of the Group by Victim Response by Sexual Contact interaction within each level of victim response revealed a significant Group by Sexual Contact interaction at the Cry level of victim response. Further examination of the two-way interaction at the Cry victim response revealed simple effects at the Fondle and Intercourse levels of contact. Thus, at the higher levels of contact, when the victim's response was crying, the SA group exhibited greater distorted beliefs about the victim than both the PA and NA groups.

Offender related distortions. As predicted, the ANOVA for Offender Related Distortions revealed a significant main effect, $F(2, 41) = 4.01$, $p < .05$, $\eta^2 = .16$ (see Figure 2). Pairwise comparisons revealed that SA participants had greater cognitive distortions about the offender ($M = 1.80$, $SD = .22$) than NA participants ($M = 1.04$, $SD = .16$), $p < .01$. The comparisons also revealed a trend suggesting that SA participants had greater cognitive distortions than PA participants ($M = 1.31$, $SD = .21$), $p = .11$.

Significant interactions were not predicted for Offender Related Distortions. As anticipated, the Group by Victim Response by Sexual Contact, Group by Sexual Contact,

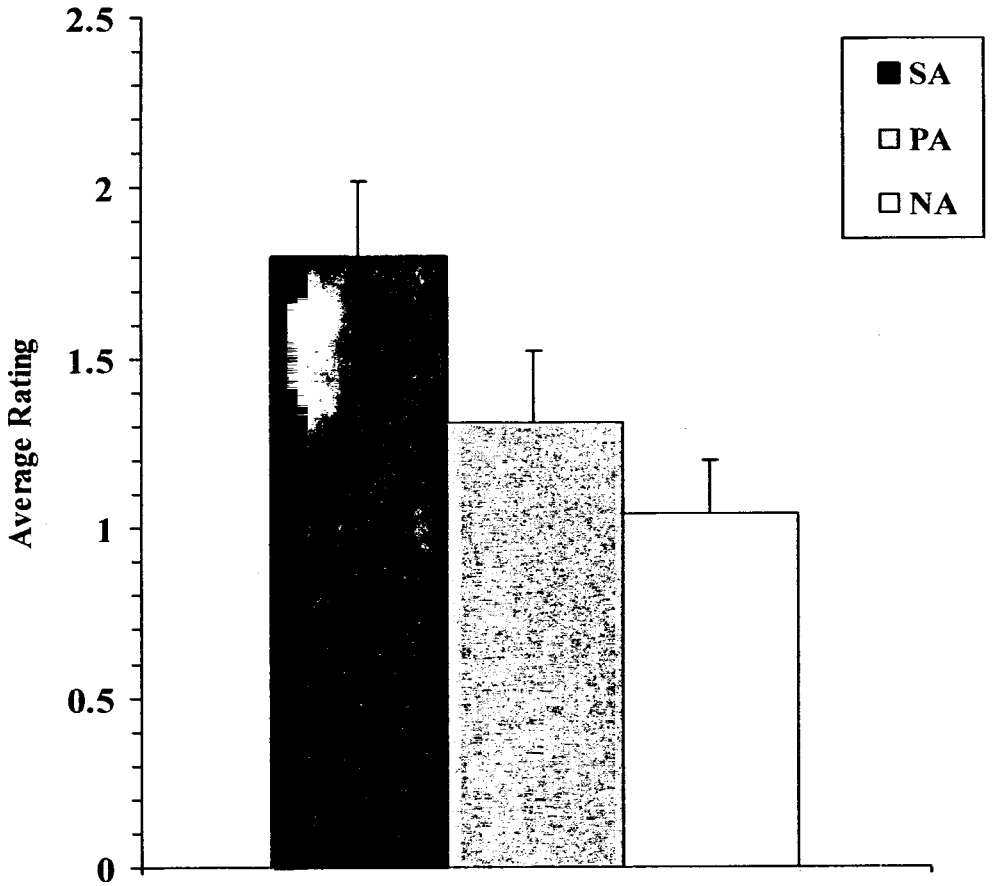

Figure 2. Group Main Effects for Offender Related Distortions

and Group by Victim Response interactions were not significant, F (12, 146) = 4.38, p = .12, η^2 = .08; F (6, 123) = 1.36, p = .75, η^2 = .04; F (4, 62) = 1.43, p = .24, η^2 = .06, respectively.

Adolescent Cognitions Scale (Hypothesis Six)

It was hypothesized that the SA participants would exhibit a significantly higher level of cognitive distortions relating to sex offending as measured by the ACS. A one-way ANOVA was conducted to test this hypothesis, with the total ACS score as the dependent variable. Contrary to predictions, the ANOVA revealed no significant differences on ACS scores, F (2, 41) = .03, p = .97, η^2 = .01.

Beliefs Measure (Hypothesis Seven)

It was hypothesized that SA participants would exhibit significantly different scores than PA and NA groups with respect to beliefs about general aggression, as measured by the BM. A MANOVA was conducted to examine this hypothesis, with the five sub-scale scores of the BM as dependent variables. The BM subscales measure the beliefs that (a) aggression is legitimate, (b) aggression increases self-esteem, (c) aggression helps to avoid a negative image, (d) victims deserve it, and (e) victims do not suffer. The MANOVA revealed a significant group difference on the combined dependent variables, F (10, 74) = 2.26, $p < .05$, η^2 = .23.

Follow-up ANOVAs revealed significant group effects with respect to the belief that victims do not suffer, the belief that aggression increases self-esteem, and the belief that aggression is legitimate, F (2, 41) = 6.68, $p < .01$, η^2 = .25; F (2, 41) = 4.00, $p < .05$, η^2 = .16; F (2, 41) = 2.66, $p < .10$, η^2 = .12, respectively (see Figure 3). Average subscale scores for each group are presented in Table 4. Significant ANOVAS were

further examined using pairwise comparisons. Pairwise comparisons revealed that, as predicted, compared to the NA participants, the SA participants were more likely to perceive that victims do not suffer, that aggression increases self-esteem, and that aggression is a legitimate response, ps < .01, .05, and .10. The SA participants differed from the PA participants only with respect to the belief that victims do not suffer. The SA Group was more likely to perceive that victims do not suffer than the PA group, p < .10. There were no significant differences between the PA and NA Groups.

The ANOVAs examining the remaining BM subscales, the belief that aggression decreases negative image and the belief that victims deserve it, were not significant, F (2, 41) = .24, p = .78, η^2 = .01; F (2, 41) = 1.48, p = .24, η^2 = .07, respectively.

Table 4.

Mean Beliefs Measure Subscale Scores

Subscale	SA Group M	SA Group SD	PA Group M	PA Group SD	NA Group M	NA Group SD
Aggression Is Legitimate	12.91_a	(1.14)	10.58_{ab}	(1.10)	9.67_b	(.83)
Aggression Increases Self-Esteem	6.00_a	(.60)	4.67_{ab}	(.58)	3.90_b	(.43)
Aggression Decreases Negative Self-Image	6.27_a	(.85)	6.00_a	(.81)	5.57_a	(.62)
Victims Deserve It	8.00_a	(.72)	8.08_a	(.69)	6.81_a	(.52)
Victims Do Not Suffer	7.64_a	(.68)	5.83_b	(.69)	4.57_b	(.49)

Note: The higher the score is, the greater the distorted belief. Means in the same row that do not share subscripts differ at p < .10 in post-hoc comparisons.

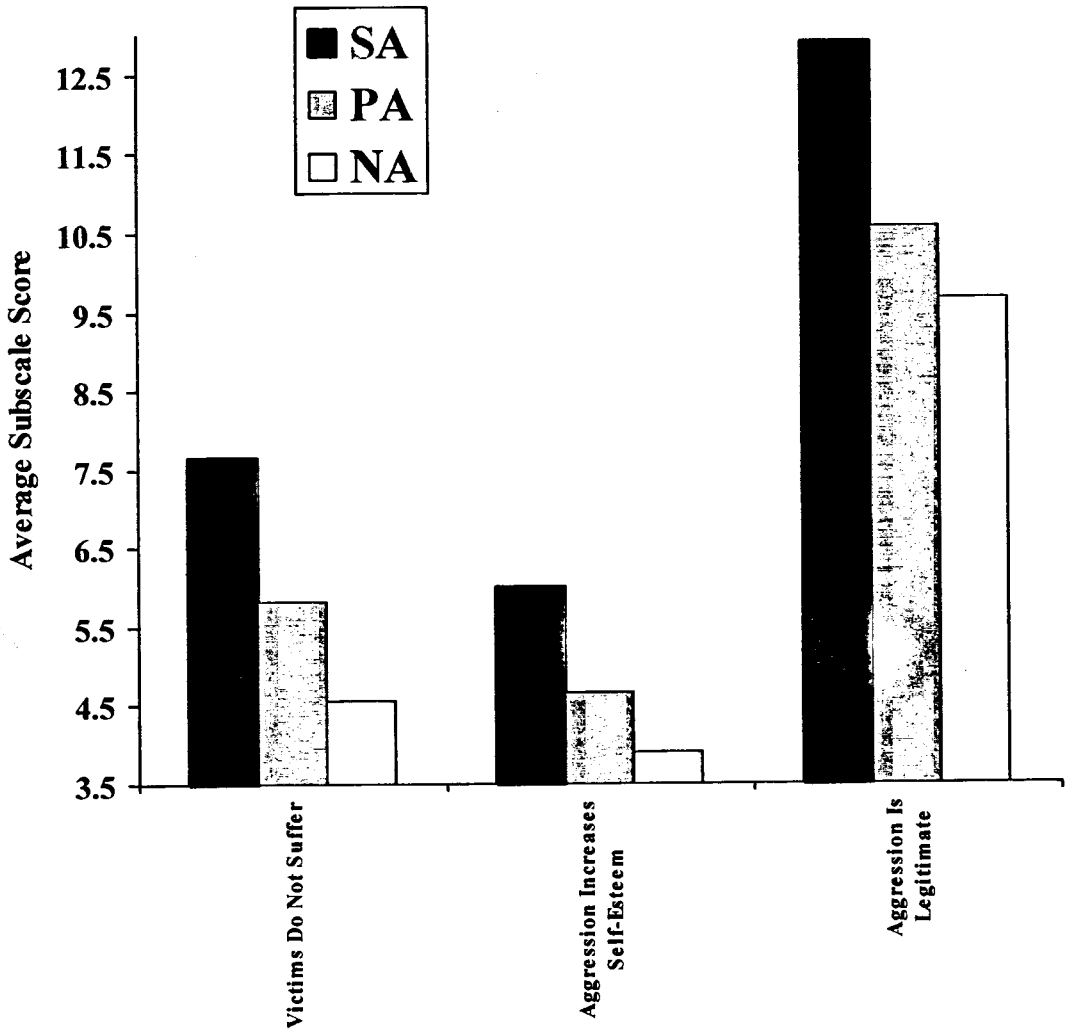

Figure 3. Average Beliefs Measure Subscale Scores.

Ancillary Analyses

Attitudes and Values About Sexual Activity and Sexual Behaviors (Hypothesis Eight)

Attitudes and values. A MANOVA was conducted to consider Group differences with respect to attitudes and values about sex, as measured by the Mathtech AVI. The dependent variables were seven subscale scores of the Mathtech AVI: clarity of personal sexual values, understanding of personal sexual responses, attitude about gender role behaviors, attitude about sexuality, attitude about birth control, attitude about premarital intercourse, and satisfaction with personal sexuality. The MANOVA revealed a significant group difference on the combined dependent variables, F (14, 70) = 3.25, p < .01, η^2 = .39.

Follow-up ANOVAs revealed significant differences with respect to understanding of personal sexual response, attitudes about premarital intercourse, clarity of personal sexual beliefs, attitudes about birth control, and satisfaction with personal sexual behavior (see Table 5 for results). Group effects were explored further using Tukey's post-hoc comparisons. Tukey's post-hoc comparisons indicated that SA participants were less likely to endorse the importance of birth control than NA participants. SA participants also were less satisfied with their sexual behavior and had less clarification about their sexual beliefs than PA participants. Both SA and NA participants exhibited less awareness of their own sexual responses than PA participants. PA participants were more likely to endorse premarital intercourse than NA participants (see Table 5).

Table 5.

Results of Univariate F-Tests and Tukey's Post

Hoc Comparisons for Mathtech Attitude and Values Inventory Subscale Scores

	SA Group		PA Group		NA Group			
Subscale	M	SD	M	SD	M	SD	F (2, 41)	η^2
Clarity of Personal Sexual Values	18.00_a	(.92)	21.83_b	(.88)	20.19_{ab}	(.67)	4.51**	.18
Understanding of Sexual Response	18.09_a	(1.01)	21.83_b	(.97)	17.67_a	(.73)	6.30***	.24
Attitude about Gender Roles	18.09_a	(.65)	19.25_a	(.62)	19.57_a	(.47)	0.56	.03
Attitudes about Sexuality	15.18_a	(.95)	16.50_a	(.91)	15.52_a	(.69)	1.76	.08
Attitude about Birth Control	20.54_a	(.97)	21.83_{ab}	(.93)	23.67_b	(.70)	3.62**	.15
Attitude about Premarital Intercourse	10.90_{ab}	(1.68)	7.25_a	(1.61)	14.09_b	(1.22)	5.84***	.22
Satisfaction with Sexuality	15.54_a	(1.47)	20.25_b	(1.40)	18.43_{ab}	(1.06)	2.73*	.12

Note. Means in the same row that do not share subscripts differ at $p < .10$ in Tukey's post-hoc comparisons.

*$p < .10$. ** $p < .05$. ***$p < .01$.

The ANOVAs examining attitudes towards general sexuality (e.g., attitudes about the importance of sexual relations in a relationship) and attitudes about gender roles were not significant.

Sexual behaviors. A MANOVA was conducted to consider Group differences with respect to sexual behavior, as measured by the Mathtech B. The dependent variables were the following eight subscale scores of the Mathtech B: social decision making skills, sexual decision making skills, birth control assertiveness skills, comfort talking about sex, comfort talking about birth control, comfort being assertive in sexual relationship, comfort with current sexual behavior, and comfort using birth control. The MANOVA revealed a significant group difference on the combined dependent variables, $F(16, 52) = 2.98$, $p < .01$, $\eta^2 = .48$.

Follow-up ANOVAs revealed significant group effects for each of the eight subscales (see Table 6 for results). Group effects were further explored using Tukey's post-hoc comparisons. Compared to both the NA and PA participants, SA participants reported less comfort with their current sexual behavior, $ps < .01$. SA participants also reported a lower level of sexual decision making skills than PA participants, $p < .05$, but not NA participants. Both SA and PA participants reported a lower level of social decision making skills than NA participants, $ps < .05$ and .01, respectively. Both SA and NA participants reported less comfort using birth control than PA participants, $ps < .05$ and .01, respectively. There were no other group differences with respect to the SA group, however, the PA participants differed significantly from the NA group on three of the other variables. PA participants reported a higher level of birth control assertiveness skills, greater comfort talking about sex, and greater comfort talking about birth control

Table 6.

Results of Univariate F-Tests and Tukey's Post Hoc Comparisons for Mathtech Behavior Inventory Subscale Scores

	SA Group		PA Group		NA Group			
Subscale	M	SD	M	SD	M	SD	F (2, 41)	η^2
Social Decision Making Skills	17.45_a	(1.18)	20.08_a	(1.13)	23.75_b	(.85)	9.89***	.33
Sexual Decision Making Skills	12.73_a	(1.85)	19.00_b	(1.77)	16.52_{ab}	(1.34)	3.05*	.13
Birth Control Assertiveness Skills	5.73_{ab}	(1.15)	7.33_a	(1.10)	3.00_b	(.83)	5.32***	.21
Comfort Talking about Sex	8.18_{ab}	(.80)	9.67_a	(.77)	7.52_b	(.58)	7.01***	.11
Comfort Talking about Birth Control	7.57_{ab}	(1.36)	10.87_a	(2.73)	7.57_b	(1.36)	6.72***	.29
Comfort Being Assertive in Sexual Relationship	4.14_a	(1.05)	7.00_a	(.98)	4.71_a	(.61)	2.48*	.13
Comfort with Current Sexual Behavior	1.43_a	(.46)	3.50_b	(.43)	3.48_b	(.27)	8.02***	.33
Comfort Using Birth Control	3.86_a	(2.19)	11.62_b	(2.05)	2.71_a	(1.26)	7.01***	.30

Note. Means in the same row that do not share subscripts differ at $p < .10$ in Tukey's post-hoc comparisons.

* $p < .10$. ** $p < .05$. ***$p < .01$

than NA participants, ps < .01, .10, and .01, respectively. There were no significant group differences with respect to comfort being sexually assertive.

Emotional and Behavioral Problems (Hypothesis Nine)

Four MANOVAs were conducted to consider Group differences in participants' emotional and behavioral problems. The first MANOVA examined the broad-band scales of CBCL-Internalizing, CBCL Externalizing, and CBCL-Total scores; the second examined the internalizing subscales of the CBCL (i.e, Withdrawn, Somatic Complaints, Anxious/Depressed); the third examined the externalizing subscales of the CBCl (i.e., Delinquent Behavior, Aggressive Behavior); and the fourth examined the subscales of Social Problems, Thought Problems, and Attention Problems of the CBCL. For each MANOVA, the dependent variable was the T- score for each subscale or broad-band scale.

The first MANOVA, examining the broad-band scales of Internalizing, Externalizing, and Total scores, revealed a significant group effect for the combined dependent variables, F (6, 78) = 2.31, $p < .05$, $\eta^2 = .15$. The follow-up ANOVA revealed a significant Group effect for Externalizing, F (2,41) = 5.23, $p < .01$, $\eta^2 = .20$. Tukey's post-hoc comparisons revealed that PA participants had a higher externalizing broad band score (M = 69.00, SD = 3.54) than NA participants (M = 55.67, SD = 2.54), $p < .01$. The SA group (M = 63.09, SD = 3.50) did not differ from the PA or NA groups. The follow-up ANOVAs for Internalizing and for the Total score were not significant, F (2,41) = .92, $p = .41$, $\eta^2 = .04$; F (2, 41) = 2.48, $p = .11$, $\eta^2 = .11$.

The second MANOVA, examining the Internalizing subscales (i.e., Withdrawn, Somatic Complaints, Anxious/Depressed), revealed no significant group effects for the combined dependent variables, F (6, 78) = .99, p = .44, η^2 = .07.

The third MANOVA, examining the Externalizing subscales (i.e., Delinquent Behavior, Aggressive Behavior), revealed a significant group effect for the combined dependent variables, F (4, 80) = 6.10, $p < .01$, η^2 = .23. The ANOVAs revealed significant group effects for Delinquent Behavior and for Aggressive Behavior, F (2,41) = 12.27, $p < .01$, η^2 = .37; F (2,41) = 3.01, $p < .10$, η^2 = .13, respectively. Tukey's post-hoc comparisons revealed that PA and SA participants had higher Delinquent Behavior scores (PA: M = 71.58, SD = 2.39; SA: M = 67.00, SD = 2.49) than NA participants (M = 57.48, SD = 1.80), $ps < .01$. PA participants had higher Aggressive Behavior scores (M = 65.00, SD = 2.72) than NA participants (M = 56.90, SD = 2.06), $p < .10$, but not SA participants (M = 61.91, SD = 2.84).

The fourth MANOVA, examining the Social Problems, Thought Problems, and Attention Problems subscales, revealed a significant group effect for the combined dependent variables, F (6, 78) = 2.49, $p < .05$, η^2 = .16. The follow-up ANOVAs revealed a significant group effect for Social Problems, F (2,41) = 2.89, $p < .10$, η^2 = .12. Tukey's post-hoc comparisons revealed that SA participants had a higher level of social problems (M = 60.09, SD = 2.12) than NA participants (M = 53.81, SD = 1.53), $p < .05$, but not PA participants (M = 55.83, SD = 2.03). There were no significant group effects for Thought Problems and Attention Problems, F (2,41) = .13, p = .88, η^2 = .01; F (2,41) = .1.25, p = .30, η^2 = .06, respectively.

Exploratory Analyses of File Review Data

For the SA and PA groups, data describing psychosocial histories were collected through retrospective reviews of Department of Corrections and treatment center records. The records contained documentation of a wide range of behaviors and other information by numerous sources, including the girls' own reports, parental reports, state agency reports, probation reports, and treatment records and evaluations. Pearson chi square analyses were conducted for all categorical variables, and two-tailed independent sample t-tests for continuous variables. Table 7 presents descriptive information on psychosocial histories.

Maltreatment History

SA participants were significantly more likely to have a history of sexual abuse, χ^2 (1, N = 23) = 4.53, p < .05, and to have experienced multiple experiences of sexual abuse, χ^2 (1, N = 18) = 8.10, p < .01. Ninety-one percent of SA participants had experienced sexual abuse, with 73% having had multiple abuse experiences; 50% of PA participants had experienced sexual abuse, with 17% having had multiple abuse experiences. The mean age of first sexual victimization was younger for SA participants (M = 5.78, SD = 3.86) than PA participants (M = 9.00, SD = 2.64), however, this difference was not significant, t (10) = 1.32, p = .21. There were no significant differences with respect to physical abuse histories, χ^2 (1, N = 23) = .01, p = .92. Eighty-two percent of SA participants and 83% of PA participants experienced physical abuse. Table 8 presents descriptive information regarding the sexual abuse histories of the SA group; detailed information on sexual abuse experiences was not available for the PA group.

Table 7.

Psychosocial Histories

Variable	Frequencies SA Group (n = 11)	PA Group (n = 12)
Abuse History		
Physical Abuse	82.8% (9)	83.3% (10)
Sexual Abuse**	91.0% (10)	50.0% (6)
Multiple Sexual Victimizations***	72.7% (8)	17.0% (2)
Mental Health History	100.0% (11)	100.0% (12)
Inpatient Hospitalization	45.5% (5)	66.7% (8)
Outpatient Treatment	72.7% (8)	58.3% (7)
Suicide	36.4% (4)	41.7% (5)
Self-Mutilation*	27.3% (3)	66.7% (8)
Past Diagnoses		
Depression	72.7% (8)	66.7% (8)
PTSD	45.5% (5)	33.3% (4)
Bipolar	27.3% (3)	8.3% (1)
ADHD	27.3% (3)	25.0% (3)
ODD	18.2% (2)	25.0% (3)
CD*	0	25.0% (3)
OCD	0	8.3% (1)
Family History		
Family Substance Abuse History	100.0% (11)	90.0% (10/11) [1]
Family Criminal History	63.6% (7)	54.5% (6/11) [1]
Family Mental Health History	63.6% (7)	54.5% (6/11) [1]
Antisocial Behavior History		
Substance Abuse	36.4% (4)	90.0% (10/11) [1]
Truancy*	27.3% (3)	100% (12)
Runaway**	45.5% (5)	91.7% (11)
Shoplift/Steal	45.5% (5)	58.3% (7)
Fighting**	72.7% (8)	100.0% (12)
Verbal Aggression***	54.5% (6)	100.0% (12)
Fires-setting	0	9.1% (1/11) [1]
Weapon Use***	9.1% (1)	83.3% (10)
Destruction of Property*	9.1% (1)	41.7% (5)
Past Charges of Non-Victim Involved Offenses	27.3% (3)	66.7% (8)
Criminal Mischief**	0	33.3% (4)
Theft	9.1% (1)	33.3% (4)
Burglary*	0	25.0% (3)
Trespassing	0	8.3% (1)
Tampering with a Witness	0	8.3% (1)
Arson	0	8.3% (1)
Disorderly Conduct	0	20.0% (2)
Unauthorized Use of Property	0	8.3% (1)
Breach of Peace	9.1% (1)	0
Impairing a Minor	9.1% (1)	0

[1] Sample sizes for these cases vary because records did not contain the information.
* $p < .01$. ** $p < .05$. ***$p < .01$.

Table 8.

Sexually-aggressive Group Sexual Victimization Histories

Variable	Frequencies SA Group (n = 11)
Type of Sexual Abuse	
Vaginal Intercourse	54.5% (6)
Fondle	63.6% (7)
Digital Penetration	9.1% (1)
Oral Genital Contact	18.2% (2)
View Pornography	27.3% (3)
Anal Intercourse	18.2% (2)
Forced Sex with Another	18.2% (2)
Sadistic Acts	36.4% (4)
Co-perpetrator Present	36.4% (4)
Level of Coercion	
Verbal Threat	54.5% (6)
Physical Aggression	45.5% (5)
Relationship to Abuser(s)	
Family Friend	63.6% (7)
Extended Family	45.5% (5)
Father	45.5% (5)
Sibling	18.2% (2)
Gender of Abuser(s)	
Male	81.8% (9)
Both Male and Female	9.1% (1)

Mental Health History

All of the SA and PA participants had past histories of mental health treatment. More PA than SA participants had histories of inpatient hospitalizations, whereas more SA than PA participants had histories of outpatient treatment, however, these differences were not significant, χ^2 (1, N = 23) = 1.05, p = .31; χ^2 (1, N = 23) = .52, p = .47, respectively. The groups were similar with respect to past histories of suicide attempts. There was a significant difference with respect to history of self-mutilation, χ^2 (1, N = 23) = 3.57, p < .10, such that PA participants were more likely to have histories of self-mutilation than the SA participants. Both groups had similar diagnostic histories, with the exception of conduct disorder diagnosis; there was a significant difference for conduct disorder, χ^2 (1, N = 23) = 3.16, p < .10, such that more PA participants than SA participants had received a diagnosis of conduct disorder.

Family History

Family histories of substance abuse, criminal charges, and mental health problems were similar for SA and PA participants. Both SA and PA participants had high levels of substance abuse in their families (i.e., one or both parents), 100% and 90.99%, respectively; and similar proportions of SA and PA participants had family histories of criminal charges and of mental health problems.

Antisocial Behavior

Comparisons on antisocial behaviors revealed significant differences with respect to histories of weapon use, χ^2 (1, N = 23) = 12.68, p < .01, verbal aggression (i.e., threats, arguments), χ^2 (1, N = 23) = 6.97, p < .01, running-away, χ^2 (1, N = 23) = 5.79, p < .05, fighting, χ^2 (1, N = 23) = 3.76, p < .05, destruction of property, χ^2 (1, N = 23) = 3.16, p <

.10, and truancy, χ^2 (1, N = 23) = 3.57, p < .10. For each of the above variables, a significantly greater proportion of PA than SA participants engaged in the problem behavior. Examination of past history of charges for non-victim involved offenses revealed significant differences for criminal mischief, χ^2 (1, N = 23) = 4.44, p < .05, and burglary, χ^2 (1, N = 23) = 3.16, p < .10. Consistent with the above findings for antisocial behaviors, a greater proportion of PA than SA participants had histories of these charges.

Sexual Offense Information

Detailed offense information was not consistently available for the PA participants, thus information regarding offense characteristics are presented for SA participants only. Descriptive information regarding the SA group's sexual offenses are presented in Table 8. The average age of first documented offense for the SA group was 12.18 years (SD = 2.44). This is slightly younger than that of the PA group (M = 13.09, SD = 1.76), however, the difference was not significant, t (20) = 1.00, p = .33. The SA participants in this sample tended to commit offenses most often against an acquaintance, followed by a family member. Most often the offenses occurred in a private home. The most common offense behaviors were fondling, digital penetration of the victim, kissing, and oral-genital contact, respectively. Eighteen percent committed offenses along with a co-perpetrator, and 27% committed an offense while babysitting. Twenty-seven percent of the SA participants used physical aggression (e.g., hitting, slapping) during at least one offense. The most common reason provided by the SA participants for their offending was anger at another person other than the victim (e.g., their mother, the victim's mother).

Table 9.

Sexually Aggressive Group Sex Offending Behaviors and Characteristics

Variable	Frequencies SA Group (n = 11)
Relationship to Victim(s)	
Acquaintance	72.7% (8)
Sibling	36.4% (4)
Cousin	9.1% (1)
Location of Incident(s)	
Private Home	90.9% (10)
Public Place	9.1% (1)
Institution (e.g., Treatment Ctr.)	36.4% (4)
Offense Behavior(s)	
Vaginal Intercourse	27.3% (3)
Fondle	90.9% (10)
Digital Penetration	45.5% (5)
Kissing	45.5% (5)
Fondle Breasts	27.3% (3)
Anal Penetration w/ Object	9.1% (1)
Exposure	27.3% (3)
Oral – Genital Contact	36.4% (4)
Co-perpetrator Present	18.2% (2)
Babysitting	27.3% (3)
Level of Coercion	
Verbal Threat	18.2% (2)
Physical Aggression	27.3% (3)
Reason(s) Provided for Offense	
Anger at another (e.g., mother, victim's mother)	33.3% (3/9)[1]
Anger at victim's mother	11.1% (1/9)
Curious	11.1% (1/9)
Sexual stimulation	11.1% (1/9)
Considered interaction mutual	22.2% (2/9)
Acted out due to own victimization	11.1% (1/9)
Victim's fault	11.1% (1/9)
Do not know why	22.2% (1/9)

[1] Sample sizes for these cases vary because records did not contain the information

CHAPTER 4

DISCUSSION

Sexually-aggressive girls show evidence of deviant social information-processing. In the current study, the sexually-aggressive girls exhibited more deviant beliefs and attitudes about sexual aggression than both the non-aggressive and physically-aggressive girls. They also had more deviant beliefs about physical aggression than the other two groups. The sexually-aggressive girls were more likely than the physically aggressive and non-aggressive girls to endorse statements reflecting the belief that the offender in a sexually aggressive vignette was not responsible for initiating the inappropriate sexual contact described in the vignette. They also differed from the physically aggressive and non-aggressive girls with respect to perceptions about the victim. The sexually-aggressive girls' perceptions relating to the victim (i.e., victim complicity, victim benefit, victim harm, victim responsibility, victim enjoyment) were moderated by both the degree of sexual contact and level of child's response described in the vignettes. When the victim's response was clearly negative (e.g., victim cries) and the degree of sexual contact was more serious (e.g., fondling, intercourse), the sexually-aggressive girls' responses diverged from those of the non-aggressive and physically aggressive girls, reflecting greater distorted beliefs about the victim than the other two groups. In contrast, in those situations where the victim's response was essentially ambiguous (e.g., no visible response) or was clearly positive (e.g., victim smiles), all three groups of girls displayed a similar pattern of responding across the various degrees of sexual contact.

When conducting research on attitudes and beliefs about behavior that is not socially acceptable, such as those beliefs examined in this study, it is important to keep in mind that the results can be confounded if some participants' have greater tendencies to respond in a socially desirable manner. An examination of social desirability in this study revealed no differences among the three groups in their tendencies to respond in a socially desirable manner, indicating that socially desirable responding was not a confounding factor in this study.

There is very limited research on distorted cognitions among sexually-aggressive adolescent males with which to compare the present findings. However, a recent study by Spaccarelli and colleagues on adolescent males found results consistent with those of the present study (Spaccarelli, Bowden, Coatsworth, & Kim, 2000). Using a scale designed to parallel Slaby and Guerra's (1988) measure of attitudes about physical aggression (i.e., the BM), Spaccarelli et al. found that sexually-aggressive boys were more likely than non-aggressive boys to endorse beliefs that rationalize or minimize the suffering of victims of sexual aggression.

The present results from the vignettes are generally consistent with studies on the beliefs of adult male sex offenders (e.g., Abel et al., 1984, Abel et al., 1989; Blumenthal, Gudjonsson, & Burns, 1999; Hanson et al., 1994; Hayashino et al., 1995; Stermac & Segal, 1989). The vignettes used in the present study were based on a measure originally developed by Stermac and Segal. Similar to the present findings, their sample of adult male child molesters attributed less responsibility to the offender compared to adults from the community and other type of offenders. In contrast to the present findings, they found that the groups displayed similar response patterns when the victim's response was

negative and divergent patterns when the response was neutral, with the child molesters endorsing greater distorted beliefs than the other groups when the victim showed no visible response.

Although inconsistent with Stermac and Segal's (1989) findings, the present finding that the sexually-aggressive girls exhibited greater distorted beliefs about the victim (e.g., the victim deserved it) when the victim cried in response to inappropriate sexual contact is consistent with the frequently made observation that sex offenders lack the capacity for empathy (Hudson et al., 1993; Racey, Lopez, & Schneider, 2000; Ward, Hudson, & Marshall, 1995). Marshall and colleagues have suggested that the ability to recognize emotions in others is the first step in the empathy process (Marshall, Hudson, Jones, & Fernandez, 1995). That there were differences in perceptions about the victim only when the victim cried may reflect a deficit in the sexually-aggressive girls' abilities to recognize others' emotions. In particular, sexually-aggressive girls may be less able to identify signs of emotional distress in others. If this is the case, sexually-aggressive girls may be less likely than their peers to feel empathy for a victim when in the very situation that one would expect the highest level of empathy -- when the victim shows a negative emotional response.

A recent study on emotion recognition in adolescent sex offenders found that sexually-aggressive boys were significantly less likely to accurately identify emotional states based on facial expressions and were more likely to misinterpret important non-verbal messages (Racey, et al., 2000). Similar studies have found that adult sex offenders tend to misinterpret negative emotional responses. Evidence suggests that adult sex offenders misinterpret passivity or frightened compliance as a desire for and enjoyment

of the sexual encounter (Ward et al., 1995) and, compared to other prison inmates and community controls, they are the least accurate at identifying emotions, confusing fear with surprise and anger with disgust (Hudson et al., 1993). Thus, the sexually-aggressive girls may have misinterpreted the victim's negative crying response. For instance, they may have viewed it in a more positive manner than the other groups and, as a result, were more likely than the other groups to perceive the victim as enjoying, benefiting from, wanting, or being responsible for the interaction, even when the victim's response was clearly negative.

Interestingly, although the sexually-aggressive girls exhibited greater distorted beliefs in their responses to the vignettes, there were no significant differences between the groups with respect to the ACS measure of cognitive distortions relating to sex offending. One explanation for this discrepancy is that the ACS may not be a valid measure of cognitive distortions in adolescent sex offenders. The ACS has not yet demonstrated discriminant validity in studies with adolescent boys. The scale did not differentiate between adolescent sex offenders and a group of delinquent adolescent males (Abel et al., 1984) or a group of matched controls (Hunter et al., 1991). Moreover, a recent study on adolescent males found that non-sex delinquent offenders actually scored significantly higher than a group of adolescent sex offenders on the ACS (Racey et al., 2000).

Beyond this, there is the issue of the validity of the ACS when used with girls. The ACS was first developed for use with adolescent boys based on a scale for adult male sex offenders, then was further modified for this study for use with girls. It is possible, if not likely, that changing the items for use with girls affected the scale's validity. The

scale may not even be face valid for girls. The attitudes and beliefs of sexually-aggressive girls may be qualitatively different than those of boys and men, in which case the statements that compose the ACS may not accurately reflect the typical beliefs and attitudes of sexually-aggressive girls. For instance, a sexually-aggressive girl may believe that, because she is girl, her behavior cannot be perceived as sexually-aggressive, no matter how aggressive her behavior. Or she may believe that all boys want to have sex given the opportunity, regardless of the circumstances.

Notwithstanding the discrepant results on the vignettes and ACS, the results from the BM provide additional support for the hypothesis that the sexually-aggressive girls have distorted beliefs about aggression. The BM results suggest that sexually-aggressive girls have distorted beliefs not just about sexual aggression but also about physical aggression. The sexually-aggressive girls were more likely than the non-aggressive girls to believe that physical aggression is a legitimate response, that victims of aggression do not suffer, and that responding in a physically aggressive manner increases self-esteem. The latter belief regarding self-esteem may not necessarily be a distortion, and might be more accurately classified as a belief supporting aggression. The sexually-aggressive girls were more likely than the physically-aggressive girls to agree with the belief that victims do not suffer.

These findings are generally consistent with previous findings on physically-aggressive adolescents compared to their non-aggressive peers (Slaby & Guerra, 1988) and with findings on adolescent male sex offenders compared to their non-aggressive peers (Spaccarelli et al., 1997). In their frequently cited study on social information-processing in aggressive adolescents, Slaby and Guerra found that violent adolescent

delinquents were more likely than low aggressive adolescents to agree with beliefs that aggression is legitimate, that it results in positive consequences, and that victims do not suffer. Spaccarelli and colleagues extended Slaby and Guerra's belief measure to examine adolescent male sex offenders' cognitions about general aggression compared to their physically aggressive and non-offending peers from the community. When Spaccarelli et al. combined the five BM subscales into three scales (i.e., beliefs about self, beliefs about victim, beliefs about the legitimacy of aggression), they found that, consistent with the present findings, the sex offenders and non-offenders differed significantly on all three scales. However, in contrast to the present study, Spaccarelli et al. found no differences between their samples of adolescent male sex offenders and violent offenders with respect to beliefs about general aggression. One possible explanation for this discrepancy is the high degree of stigma associated with female sexual aggression. Sexually-aggressive boys may experience less stigma than girls because sexual-aggression by boys seems to be, at least relatively, more accepted in society (e.g., "boys will be boys" attitudes).

Societal acceptance, or lack of acceptance, of behavior has been suggested as a possible explanation for the strength of cognitive distortions by other researchers. For example Blumenthal et al. (1999) suggests that child molesters may have more deviant cognitive distortions than rapists because the attitudes and beliefs justifying rape appear to be widespread in society whereas attitudes justifying sexual activity with children are not. Similarly, Abel et al. (1984) suggest that adolescents who sexually abuse children adjust their belief system and cognitions (e.g., develop biased beliefs about their behavior) as they become aware of the conflict between their behavior and the social

mores of their culture. It is arguable that, as it is often not even acknowledged to occur, there is less cultural acceptance for aggression by adolescent girls than any other type of sexual aggression. As such, the tendency towards distorted thinking might be especially strong for sexually--aggressive girls, so strong that it becomes a habitual pattern of thinking about all victims, not just victims of sexual aggression.

Interestingly, in contrast to Slaby and Guerra (1988), the present study found no differences between physically-aggressive and non-aggressive girls with respect to beliefs about general aggression. There are a few possible reasons for this discrepancy. First, Slaby and Guerra's samples contained both males and females (50% of each gender), whereas the present study examined females only. Delinquent girls with histories of physical aggression may be less likely than males with the same histories to endorse more beliefs supporting aggression compared to their non-aggressive peers. Second, Slaby and Guerra controlled for aggression in their comparison groups by creating two groups (i.e., high and low aggressive) identified through teacher nomination. In contrast, this study had only one non-delinquent comparison group comprising adolescents who, by their own self-report, did not have a history of sexually aggressive or physically aggressive behavior. It is possible that some of these girls, although non-aggressive by self-report, exhibited patterns of aggressive behavior, and might have been identified as aggressive by a teacher or parent. As such, the non-aggressive group in this study may have contained physically aggressive girls, decreasing the likelihood of finding differences between the non-aggressive and physically aggressive groups.

Ancillary Findings

In addition to the primary analyses of attitudes and beliefs about aggression, this study explored the attitudes and values about sexual activity, sexual behaviors, and emotional and behavioral problems of the three groups. The purpose of this exploratory component was to add to existing knowledge of general characteristics of sexually-aggressive girls. The picture of sexually-aggressive girls that emerges is of an adolescent female with delinquent, but not aggressive, behavior problems, who has social skill deficits, which are more severe than either her non-aggressive or her physically-aggressive counterparts. This picture is generally consistent with previous findings on adolescent male sex offenders.

Previous findings on adolescent male sex offenders indicate that they often have histories of delinquent and antisocial behaviors (see Fehrenbach et al., 1986; Ryan, Miyoshi, Metzner, Krugman, & Fryer, 1996). Consistent with this, the sexually-aggressive girls reported the same level of delinquent behaviors (e.g., lying, cheating, running away, stealing) as the physically-aggressive girls, with both groups reporting greater delinquent behavior problems than non-aggressive girls. At the same time, the sexually-aggressive girls had lower aggressive behavior and externalizing behavior scores than the physically-aggressive girls. This finding also is consistent with previous research on adolescent male sex offenders (Blaske, Borduin, Henggeler, & Mann, 1989; Kempton & Forehand, 1992), and with exploratory research on adolescent female sex offenders (Kubik et al., 2002a). Thus, while the sexually-aggressive girls engaged in delinquent and antisocial behaviors, as a whole, they seem to have a lower level of externalizing behavior problems than their physically-aggressive counterparts.

Interestingly, there were no differences with respect to internalizing behavior problems. This finding is particularly relevant to research on adolescent girls with behavioral problems, as adolescent girls tend to exhibit more internalizing behavior problems, such as depression, than adolescent boys (Ryan, et al., 1987). Nevertheless, the finding of no differences was consistent with previous comparisons of adolescent male sex offenders, delinquent offenders, and community control groups with respect to internalizing symptoms (Blaske et al., 1989; Kempton & Forehand, 1992).

The CBCL finding most relevant to this study was that the sexually-aggressive girls had more social problems than the non-aggressive girls. This finding, which is consistent with findings from adolescent male sex offenders (Katz, 1990), provides additional evidence in support of social information-processing deficits in sexually-aggressive girls. A main premise of Dodge's social information processing theory of aggression is that aggressive adolescents have social skills deficits (e.g., Slaby & Guerra, 1988). Given this, the lack of differences in social problems between the physically aggressive and non-aggressive girls is surprising; however, it is somewhat consistent with findings on the BM with respect to beliefs about general aggression.

Examination of the sexual behaviors and sexual values of the three groups also suggested deficits in social decision making skills for sexually-aggressive girls. The sexually-aggressive girls scored lower than non-aggressive girls on sexual-decision making skills and lower than both non-aggressive and physically aggressive girls on social decision making skills. The sexually-aggressive girls also reported less comfort with their current sexual behavior than the physically aggressive and non-aggressive

girls. These findings indicate the importance of interventions targeted to sexually-aggressive girls that teach pro-social sexual skills (see Perry & Ohm, 1999).

Record Review

The record review provided additional information on the backgrounds of the sexually-aggressive and physically aggressive girls. Because it is widely speculated that past sexual victimization may increase the likelihood of future offending, victimization history has received substantial attention in the literature. The present findings indicated that sexually-aggressive girls were not only more likely to have histories of sexual victimization, but also to have experienced multiple sexual victimizations compared to their physically-aggressive peers. The rate of sexual abuse reported by the sexually-aggressive group (i.e., 91%) is consistent with previous findings, which indicate that the vast majority of sexually-aggressive girls have experienced childhood sexual victimization (Bumby & Bumby, 1995; Hunter et al., 1993; Mathews et al., 1997). The comparatively higher rates of sexual victimization for the sexually-aggressive girls compared to the physically aggressive girls also are consistent with similar comparisons with adolescent males (e.g., Ford & Linney, 1995).

Beyond victimization history, other interesting findings were that the groups had similar mental health histories and past diagnoses, except the physically aggressive girls were much more likely to have been diagnosed with a conduct disorder. Consistent with this, and with findings on the CBCL indicating higher levels of externalizing behaviors, the records indicated higher levels of anti-social behaviors, such as truancy, weapon use, and running away, for the physically aggressive girls.

Limitations

There are several limitations to this study. First, the sample size is small. It is worth noting, however, that the sample size of this study is comparable to that of others in the published literature on female adolescent sex offending. Two of the four most commonly cited studies in the published literature have sample sizes of 13 or less (Johnson, 1989; Mathews et al., 1997). These small samples reflect the low base rate of girls who have had problems with sexually-aggressive behavior. They also reflect the difficulties of obtaining access to this population. For this study, the author's access to participants was constrained due to the difficulties of obtaining consent to do research with minors in state custody, as were many of the girls in this study. Due to these difficulties, sampling was extended to a relatively wide geographical region and data was collected for over one year. Unfortunately, despite these efforts, the sample size remains relatively small.

A second limitation of this study is that the community comparison group of non-aggressive girls had higher level reading abilities and their parents had higher level occupations, suggesting a higher educational level and socioeconomic status for the non-aggressive girls compared to the sexually-aggressive and physically-aggressive girls. It is impossible to know whether the group differences found in the present study will be present with a lower socio-economic status community comparison group. Third, because the data are correlational, only limited conclusions can be drawn on causal associations between cognition and sexually aggressive behavior. As Ward et al. (1997) point out, there is a general consensus that cognitive distortions play a role in facilitating sexual offending, although it remains unclear whether these cognitive aspects of sexual

offending constitute precursors to offending or post-offense self-esteem maintenance strategies. In the current study, it is not possible to distinguish precursors from maintenance strategies. Fourth, the questionnaires measuring cognitive distortions about sexually-aggressive behavior were developed for use with males. The validity of these measures for adolescent girls remains to be demonstrated. Fifth, the measures of cognitions used in this study rely on conscious cognitive processes. They do not provide information about the more automatic or subconscious cognitive processing which are also thought to influence aggressive behavior at the decision-response stage (see Dodge, 1986).

A final limitation is that the alpha level set for this study (i.e., $p < .10$) is relatively high. The alpha level is fixed at a higher level due to the inherent constraints in sample size for this population (see Kazdin, 1998). Nevertheless, the higher alpha level affected only two findings relating to the primary analyses of cognitive distortions. Had the alpha level been set at the more traditional .05 level (a) the finding on the vignettes that the sexually-aggressive girls were more likely than the non-aggressive and physically aggressive to exhibit distorted beliefs about the victim when the victim's response was negative (i.e., victim cries) and the degree of sexual contact was fondling would have been considered a trend rather than a significant difference, and (b) the finding on the BM that the sexually-aggressive girls were more likely than the non-aggressive and physically aggressive girls to believe that physical aggression is a legitimate response also would have been considered a trend rather than a significant difference.

Implications and Areas for Future Research

Notwithstanding the limitations of this study, the findings provide much needed information about possible differences in the social information-processing of sexually-aggressive girls in treatment and correctional facilities compared to their physically-aggressive peers also in treatment and correctional facilities and to non-aggressive girls from the community. The findings also point to several areas for future research.

First, there is a need to further examine the emotion recognition skills of sexually-aggressive girls. The evidence that the sexually-aggressive girls exhibited greater distorted beliefs about the victim only when the victim responded negatively in the vignettes suggests possible deficits in interpretation of emotional cues for this population (e.g., difficulties interpreting what it means when a person cries). This phenomenon has potential treatment implications and needs to be further investigated, for instance by testing sexually-aggressive girls' abilities to accurately identify facial expressions.

Second, there is a need for additional research on social cognitive factors in sexually-aggressive girls compared to other types of delinquent girls in order to reliably determine whether sexually-aggressive girls are more similar to or different from physically aggressive girls with respect to social-information processing patterns and social skills. The lack of differences between the physically aggressive and non-aggressive girls with respect to beliefs about general aggression and social problems was surprising. It is possible that the physically-aggressive girls in this study had higher social cognitive skills than is typically found in aggressive samples (e.g., Slaby & Guerra, 1988), in which case the results would indicate differences between the sexually-aggressive and physically-aggressive groups that may not exist among these populations

as a whole. A larger scale study is needed to further explore this study's findings of more deviant beliefs, even about general aggression, and more pervasive social problems for sexually-aggressive girls compared to their physically-aggressive counterparts before more definitive conclusions can be drawn about these differences. If, as this study suggests, sexually-aggressive girls have more deviant beliefs about sexual aggression and greater social skills deficits, it is important to provide specialized interventions for sexually-aggressive girls focused specifically on these social cognitive factors. These interventions might be part of a separate intervention for sexually-aggressive girls, or added as an adjunctive intervention for sexually-aggressive girls in those situations, such as treatment and correctional settings, where the two groups are treated together.

Third, these findings indicate that, as has been demonstrated for their male counterparts, sexually-aggressive girls do indeed exhibit distorted thoughts; however, it is not clear whether girls exhibit the same quantity or quality of cognitive distortions as boys. In an exploratory study of eleven age-matched adolescent male and female sex offenders, Kubik et al. (2002b) found that similar proportions of each group exhibited distorted thoughts and engaged in denial, but information about the relative degree or quality of the distorted thoughts was not available. There is a need for a direct comparison of the beliefs of sexually-aggressive girls and their male counterparts with respect to quantity and quality of beliefs about aggression and sexual aggression.

Moreover, while the present findings indicate that it is appropriate to use cognitive-behavioral treatment programs that target cognitive distortions (e.g., Becker, 1990; Morenz & Becker, 1995) with adolescent girls, more information is needed on the effectiveness of these programs with girls. That is, beyond establishing that girls do

indeed exhibit the cognitive distortions that are targeted in cognitive-behavioral treatments, it is necessary to examine whether these treatments, which have been shown to be helpful for sexually-aggressive adolescent boys (e.g., Becker et al., 1988, Becker, 1998), are effective for their female counterparts.

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APPENDICES

APPENDIX A

Marlowe-Crowne Scale

Circle: 1 = if you Strongly Disagree with the statement
2 = if you Slightly Disagree with the statement
3 = if you Neither Disagree or Agree with the statement
4 = if you Slightly Agree with the statement

Listed below are a number of statements concerning personal attitudes and traits. Read each item and rate each item according to the extent to *which* you agree or disagree with the statement as it pertains to you personally.

5 = if you Strongly Agree with the statement

1. It is sometimes hard for me to go on with my work if I am not encouraged.

1 2 3 4 5

2. I sometimes feel resentful when I don't get my way.

1 2 3 4 5

3. On a few occasions, I have given up doing something because I thought too little of my ability.

1 2 3 4 5

4. There have been times when I felt like rebelling against people in authority even thought I knew.

1 2 3 4 5

5. No matter who I'm with, I'm always a good listener.

1 2 3 4 5

6. There have been occasions when I took advantage of someone.

1 2 3 4 5

7. I'm always willing to admit when I make a mistake.

1 2 3 4 5

8. I sometimes try to get even, rather than forgive and forget.

1 2 3 4 5

9. I am always courteous , even to people who are disagreeable.

1 2 3 4 5

10. I have never been irked when people expressed ideas very different from my own.

1 2 3 4 5

11. There have been time when I was quite jealous of the good fortune of others.

1 2 3 4 5

12. I am sometimes irritated by people who ask favors of me.

1 2 3 4 5

13. I have never deliberately said something the hurt someone's feelings.

1 2 3 4 5

APPENDIX B

Vignettes Questionnaire

DIRECTIONS: For this questionnaire you will read 12 different situations. For each situation, the beginning is the same, but the end (which is printed in bold) is different. Please read each one carefully. After reading each situation, answer the six questions listed below it by circling the appropriate number on the scale.

> *Mary was babysitting her younger neighbor Neil one Saturday afternoon while his parents were out. They first watched a couple of TV shows together in the living room, then Mary told Neil that she wanted to go play in his room. When they got there, Mary suggested they play cards on the bed . . .*

1) . . . ***After playing cards for a bit, Mary told Neil to lay down with her on the bed. Mary then touched Neil's penis over his clothes. Neil smiled when Mary touched him..***

	not at all				definitely
(1) Do you think Neil enjoyed what happened?	1	2	3	4	5
(2) Do you think Neil wanted this to happen?	1	2	3	4	5
(3) Do you think Neil could benefit from this experience?	1	2	3	4	5
(4) Do you think Neil was responsible for what happened?	1	2	3	4	5
(5) Do you think Neil was harmed by this experience?	1	2	3	4	5
(6) Do you think Mary was responsible for what happened?	1	2	3	4	5

2) . . . ***After playing cards for a bit, Mary told Neil to lay down with her on the bed. Mary then touched Neil's penis over his clothes. Neil showed no response at all when Mary touched him..***

	not at all				definitely
(1) Do you think Neil enjoyed what happened?	1	2	3	4	5
(2) Do you think Neil wanted this to happen?	1	2	3	4	5
(3) Do you think Neil could benefit from this experience?	1	2	3	4	5
(4) Do you think Neil was responsible for what happened?	1	2	3	4	5
(5) Do you think Neil was harmed by this experience?	1	2	3	4	5
(6) Do you think Mary was responsible for what happened?	1	2	3	4	5

3) . . . ***After playing cards for a bit, Mary told Neil to*** **lay** ***down with her on the bed. Mary then touched Neil's penis over his clothes. Neil cried and told Mary to stop when Mary touched him..***

	not at all				definitely
(1) Do you think Neil enjoyed what happened?	1	2	3	4	5
(2) Do you think Neil wanted this to happen?	1	2	3	4	5
(3) Do you think Neil could benefit from this experience?	1	2	3	4	5
(4) Do you think Neil was responsible for what happened?	1	2	3	4	5
(5) Do you think Neil was harmed by this experience?	1	2	3	4	5
(6) Do you think Mary was responsible for what happened?	1	2	3	4	5

Mary was babysitting her younger neighbor Neil one Saturday afternoon while his parents were out. They first watched a couple of TV shows together in the living room, then Mary told Neil that she wanted to go play in his room. When they got there, Mary suggested they play cards on the bed . . .

4) . . . After playing cards for a bit, Mary told Neil to lay down with her on the bed. Mary then rubbed Neil's penis over his clothes. Neil smiled the whole time that Mary was rubbing him..

	not at all				definitely
(1) Do you think Neil enjoyed what happened?	1	2	3	4	5
(2) Do you think Neil wanted this to happen?	1	2	3	4	5
(3) Do you think Neil could benefit from this experience?	1	2	3	4	5
(4) Do you think Neil was responsible for what happened?	1	2	3	4	5
(5) Do you think Neil was harmed by this experience?	1	2	3	4	5
(6) Do you think Mary was responsible for what happened?	1	2	3	4	5

5) . . . *After playing cards for a bit, Mary told Neil to lay down with her on the bed. Mary then rubbed Neil's penis over his clothes. Neil showed no response at all the whole time that Mary was rubbing him.*

	not at all				definitely
(1) Do you think Neil enjoyed what happened?	1	2	3	4	5
(2) Do you think Neil wanted this to happen?	1	2	3	4	5
(3) Do you think Neil could benefit from this experience?	1	2	3	4	5
(4) Do you think Neil was responsible for what happened?	1	2	3	4	5
(5) Do you think Neil was harmed by this experience?	1	2	3	4	5
(6) Do you think Mary was responsible for what happened?	1	2	3	4	5

6) . . . *After playing cards for a bit, Mary told Neil to* lay *down with her on the bed. Mary then rubbed Neil's penis over his clothes. Neil cried and repeatedly told Mary to stop the whole time that Mary was rubbing him.*

	not at all				definitely
(1) Do you think Neil enjoyed what happened?	1	2	3	4	5
(2) Do you think Neil wanted this to happen?	1	2	3	4	5
(3) Do you think Neil could benefit from this experience?	1	2	3	4	5
(4) Do you think Neil was responsible for what happened?	1	2	3	4	5
(5) Do you think Neil was harmed by this experience?	1	2	3	4	5
(6) Do you think Mary was responsible for what happened?	1	2	3	4	5

Mary was babysitting her younger neighbor Neil one Saturday afternoon while his parents were out. They first watched a couple of TV shows together in the living room, then Mary told Neil that she wanted to go play in his room. When they got there, Mary suggested they play cards on the bed . . .

7) . . . After playing cards for a bit, Mary told Neil to lay down with her on the bed. Mary then took off Neil's clothes and her own clothes and fondled his penis. Neil smiled the whole time that Mary was fondling his penis.

	not at all				definitely
(1) Do you think Neil enjoyed what happened?	1	2	3	4	5
(2) Do you think Neil wanted this to happen?	1	2	3	4	5
(3) Do you think Neil could benefit from this experience?	1	2	3	4	5
(4) Do you think Neil was responsible for what happened?	1	2	3	4	5
(5) Do you think Neil was harmed by this experience?	1	2	3	4	5
(6) Do you think Mary was responsible for what happened?	1	2	3	4	5

8) . . . ***After playing cards for a bit, Mary told Neil to lay down with her on the bed. Mary then took off Neil's clothes and her own clothes and fondled his penis. Neil showed no response at all the whole time that Mary was fondling his penis.***

	not at all				definitely
(1) Do you think Neil enjoyed what happened?	1	2	3	4	5
(2) Do you think Neil wanted this to happen?	1	2	3	4	5
(3) Do you think Neil could benefit from this experience?	1	2	3	4	5
(4) Do you think Neil was responsible for what happened?	1	2	3	4	5
(5) Do you think Neil was harmed by this experience?	1	2	3	4	5
(6) Do you think Mary was responsible for what happened?	1	2	3	4	5

9) . . . ***After playing cards for a bit, Mary told Neil to lay down with her on the bed. Mary then took off Neil's clothes and her own clothes and fondled his penis. Neil cried and repeatedly told Mary to stop the whole time that Mary was fondling his penis.***

	not at all				definitely
(1) Do you think Neil enjoyed what happened?	1	2	3	4	5
(2) Do you think Neil wanted this to happen?	1	2	3	4	5
(3) Do you think Neil could benefit from this experience?	1	2	3	4	5
(4) Do you think Neil was responsible for what happened?	1	2	3	4	5
(5) Do you think Neil was harmed by this experience?	1	2	3	4	5
(6) Do you think Mary was responsible for what happened?	1	2	3	4	5

Mary was babysitting her younger neighbor Neil one Saturday afternoon while his parents were out. They first watched a couple of TV shows together in the living room, then Mary told Neil that she wanted to go play in his room. When they got there, Mary suggested they play cards on the bed . . .

10) . . . After playing cards for a bit, Mary told Neil to lay down with her on the bed. Mary then took off Neil's clothes and her own clothes, got on top of him, and put his penis in her vagina. Neil smiled the whole time that Mary did this.

	not at all				definitely
(1) Do you think Neil enjoyed what happened?	1	2	3	4	5
(2) Do you think Neil wanted this to happen?	1	2	3	4	5
(3) Do you think Neil could benefit from this experience?	1	2	3	4	5
(4) Do you think Neil was responsible for what happened?	1	2	3	4	5
(5) Do you think Neil was harmed by this experience?	1	2	3	4	5
(6) Do you think Mary was responsible for what happened?	1	2	3	4	5

11) . . . After playing cards for a bit, Mary told Neil to lay down with her on the bed. Mary then took off Neil's clothes and her own clothes, got on top of him, and put his penis in her vagina. Neil showed no response at all whole time that Mary did this.

	not at all				definitely
(1) Do you think Neil enjoyed what happened?	1	2	3	4	5
(2) Do you think Neil wanted this to happen?	1	2	3	4	5
(3) Do you think Neil could benefit from this experience?	1	2	3	4	5
(4) Do you think Neil was responsible for what happened?	1	2	3	4	5
(5) Do you think Neil was harmed by this experience?	1	2	3	4	5
(6) Do you think Mary was responsible for what happened?	1	2	3	4	5

12) ***. . . After playing cards for a bit, Mary told Neil to lay down with her on the bed. Mary then took off Neil's clothes and her own clothes, got on top of him, and put his penis in her vagina. Neil cried and repeatedly told Mary to stop the whole time that Mary did this.***

	not at all				defnately
(1) Do you think Neil enjoyed what happened?	1	2	3	4	5
(2) Do you think Neil wanted this to happen?	1	2	3	4	5
(3) Do you think Neil could benefit from this experience?	1	2	3	4	5
(4) Do you think Neil was responsible for what happened?	1	2	3	4	5
(5) Do you think Neil was harmed by this experience?	1	2	3	4	5
(6) Do you think Mary was responsible for what happened?	1	2	3	4	5

APPENDIX C

Adolescent Cognitions Scale

Read each of the statements below carefully and then put an X over the number that tells you whether you feel the statement is true or false. For this questionnaire, the term "sex" means any kind of sexual contact.

	True	False
1. If a young child stared at my vagina as I showed it to him or her, it would mean that the child like looking at it.	1	2
2. If other people have rubbed their privates against strangers on the subway, then it is OK for me to do it too.	1	2
3. A very young child can make a decision about having sex with me.	1	2
4. If I try to have sex with somebody and they don't try to stop me the whole time, it would not be called rape.	1	2
5. If I look in a stranger's window, it could get me in trouble.	1	2
6. I can pick somebody up in the subway by rubbing their body or touching them.	1	2
7. Showing my privates to a stranger in a public place will get me into trouble.	1	2
8. My brother or sister won't tell anyone about having sex with me because they really like it.	1	2
9. There is nothing wrong with looking in the boys' locker room while they are changing clothes or showering.	1	2
10. If a young child doesn't want to tell other about having sex with me, it means they really like it and want to keep doing it.	1	2
11. Some people are shy about asking for sex so they really want you to force them.	1	2
12. If I don't get caught for one sex crime, it means I probably won't get caught if I do it again	1	2

13. If my friends hang out with me after I beat them up, then it is OK to beat them up again. 1 2

14. Having sex with my brother or sister might make them afraid of having sex with other people later on. 1 2

15. Rape is so common now that most people aren't upset by being raped. 1 2

16. If a stranger stared at my privates while I am showing them in the street, it means they like it. 1 2

17. If someone acts really mean to me, beating them up is the best way to get even. 1 2

18. Many people leave their shades up because they want to be seen undressing or having sex. 1 2

19. If someone says not to me sexually, it usually means yes. 1 2

20. My sister or brother and I will get along better if we have sex together. 1 2

21. If I touch a stranger on the subway and they say nothing, it means they like it. 1 2

22. If I have sex with a child, the only way I could hurt them is if I used force. 1 2

23. It is not OK to beat someone up really badly. 1 2

24. People can get help to stop them from committing more sex crimes. 1 2

25. Lots of people walk around their house naked hoping someone will look in 1 2

26. If I show my vagina to a stranger, they will want to have sex with me afterwards. 1 2

27. Girls who wear short skirts and no bras are asking for it. 1 2

28. Having sex with my brother or sister will make us closer for the rest of our lives 1 2

29. Kids that you don't know get upset if you grab their ass on the subway. 1 2

30. Having sex with a child may hurt the child later in life.	1	2
31. It is alright to beat someone up if I don't like the way they look at me or my friends.	1	2
32. If I commit a sex crime, I should solve the problem myself and not ask anyone for help.	1	2

APPENDIX D

Beliefs Measure

Directions: Please indicate the extent to which you agree or disagree with the following statements by circling the number on the scale that best describes what you think.

1. It's O.K. to hit someone if he or she hits you first.

1 2 3 4 5

2. If you fight a lot, everyone will look up to you.

1 2 3 4 5

3. If you back down from a fight, everyone will think you're a coward.

1 2 3 4 5

4. It's O.K. to hit someone if you don't like him or her.

1 2 3 4 5

5. People who get beat up don't usually deserve it.

1 2 3 4 5

6. Being raped must be an awful experience.

1 2 3 4 5

7. It's really not O.K. to hit someone just because he or she insults you.

1 2 3 4 5

8. To be popular, you have to like violence.

1 2 3 4 5

9. It's O.K. to hit someone if you just "go crazy" with anger.

1 2 3 4 5

10. Anyone who's not a good fighter is really just a sissy.

1 2 3 4 5

11.People who get beat up probably suffer a lot.

1 2 3 4 5

12. No one deserves to be killed.

1 2 3 4 5

13. It's really not O.K. to hurt someone just because other people are doing it.

1 2 3 4 5

14. It's important to show everyone how tough you are by being a good fighter.

1 2 3 4 5

15. If you're afraid to fight you won't have any friends.

1 2 3 4 5

16. If someone gets beat up or hurt badly, it's generally not his own fault.

1 2 3 4 5

17. Even though people in my neighborhood know they might get hurt, it's still a big deal when it happens.

1 2 3 4 5

18. It's a bad idea to hit someone, even if you think he or she deserves it.

1 2 3 4 5

APPENDIX E

Mathtech Attitude and Values Inventory

Directions: The questions below are not a test of how much you know. We are interested in what you believe about some important issues. Please rate each statement according to how much you agree or disagree with it. Everyone will have different answers. Your answer is correct is it describes you very well.

Circle:
1 = if you Strongly Disagree with the statement
2 = if you Somewhat Disagree with the statement
3 = if you feel Neutral about the statement
4 = if you Somewhat Agree with the statement
5 = if you Strongly Agree with the statement

1. I am very happy with my friendships.	1	2	3	4	5
2. Unmarried people should not have sex (sexual intercourse).	1	2	3	4	5
3. Overall, I am satisfied with myself.	1	2	3	4	5
4. Two people having sex should use some form of birth control if they aren't ready for a child.	1	2	3	4	5
5. I'm confused about my personal sexual values and beliefs.	1	2	3	4	5
6. I often find myself acting in ways I don't understand.	1	2	3	4	5
7. I am not happy with my sex life.	1	2	3	4	5
8. Men should not hold jobs traditionally held by women.	1	2	3	4	5
9. People should never take "no" for an answer when they want to have sex.	1	2	3	4	5
10. I don't know what I want out of life.	1	2	3	4	5
11. Families do very little for their children.	1	2	3	4	5
12. Sexual relationships create more problems than they're worth.	1	2	3	4	5
13. I'm confused about what I should and should not do sexually.	1	2	3	4	5
14. I know what I want and need emotionally.	1	2	3	4	5
15. No one should pressure another person into sexual activity.	1	2	3	4	5
16. Birth control is not very important.	1	2	3	4	5
17. I know what I need to be happy.	1	2	3	4	5
18. I am not satisfied with my sexual behavior (sex life).	1	2	3	4	5
19. I usually understand the way I act.	1	2	3	4	5

20. People should not have sex before marriage.	1	2	3	4	5
21. I do not know much about my own physical and emotional sexual responses	1	2	3	4	5
22. It is all right for two people to have sex before marriage if they are in love.	1	2	3	4	5
23. I have a good idea of where I'm headed in the future.	1	2	3	4	5
24. Family relationships are not important.	1	2	3	4	5
25. I have trouble knowing what my beliefs and values are bout my personal sexual behavior.	1	2	3	4	5
26. I feel I do not have much to be proud of.	1	2	3	4	5
27. I understand how I behave around others.	1	2	3	4	5
28. Women should behave differently from men most of the time.	1	2	3	4	5
29. People should have sex only if they are married.	1	2	3	4	5
30. I know what I want out of life.	1	2	3	4	5
31. I have a good understanding of my own personal feelings and reactions.	1	2	3	4	5
32. I don't have enough friends.	1	2	3	4	5
33. I'm happy with my sexual behavior now.	1	2	3	4	5
34. I don't understand why I behave with my friends as I do.	1	2	3	4	5
35. At times I think I'm no good at all.	1	2	3	4	5
36. I know how I react in different sexual situations.	1	2	3	4	5
37. I have a clear picture of what I would like to be doing in the future.	1	2	3	4	5
38. My friendships are not as good as I would like them to be.	1	2	3	4	5
39. Sexually, I feel like a failure.	1	2	3	4	5
40. More people should be aware of the importance of birth control.	1	2	3	4	5
41. At work and at home, women should not have to behave differently from men, when they are equally capable.	1	2	3	4	5
42. Sexual relationships make like too difficult.	1	2	3	4	5
43. I wish my friendships were better.	1	2	3	4	5
44. I feel that I have many good personal qualities.	1	2	3	4	5
45. I am confused about my reactions in sexual situations.	1	2	3	4	5

46. It is all right to pressure someone into sexual situations.	1	2	3	4	5
47. People should not pressure others to have sex with them.	1	2	3	4	5
48. Most of the time my emotional feelings are clear to me.	1	2	3	4	5
49. I have my own set of rules to guide my sexual behavior (sex life).	1	2	3	4	5
50. Women and men should be able to have the same jobs, when they are equally capable.	1	2	3	4	5
51. I don't know what my long-range goals are.	1	2	3	4	5
52. When I'm in a sexual situation, I get confused about my feelings.	1	2	3	4	5
53. Families are very important.	1	2	3	4	5
54. It is all right to demand sex from a girlfriend or boyfriend.	1	2	3	4	5
55. A sexual relationship is one of the best things a person can have.	1	2	3	4	5
56. Most of the time I have a clear understanding of my feelings and emotions.	1	2	3	4	5
57. I am very satisfied with my sexual activities just the way they are.	1	2	3	4	5
58. Sexual relationship only bring trouble to people.	1	2	3	4	5
59. Birth control is not as important as some people say.	1	2	3	4	5
60. Family relationships cause more trouble than they're worth.	1	2	3	4	5
61. If two people have sex and aren't ready to have a child, it is very important they use birth control.	1	2	3	4	5
62. I'm confused about what I need emotionally.	1	2	3	4	5
63. It is all right for two people to have sex before marriage.	1	2	3	4	5
64. Sexual relationships provide an important and fulfilling part of life.	1	2	3	4	5
65. People should be expected to behave in certain ways just because they are male or female.	1	2	3	4	5
66. Most of the time I know why I behave the way I do.	1	2	3	4	5
67. I feel good having as many friends as I have.	1	2	3	4	5
68. I wish I had more respect for myself.	1	2	3	4	5
69. Family relationships can be very valuable.	1	2	3	4	5
70. I know for sure what is right and wrong sexually for me.	1	2	3	4	5

APPENDIX F

Matchtech Behavior Inventory

Part I

The questions below ask how often you have done some things. Some of the questions are personal and ask about you social lie and sex life. Some questions will not apply to you. Please do not conclude from the questions that you should have had all of the experiences the questions ask about. Instead, just make whatever answer describes you best.

Circle: 1 = if you do it *almost never,* which means about 5% of the time or less.
2 = if you do it *sometimes,* which means about 25% of the time.
3 = if you do it *half the time,* which means about 50% of the time.
4 = if you do it *usually,* which means about 75% of the time.
5 = if you do it *almost always,* which means about 95% of the time or more.
DNA = if the question *does not apply* to you.

1. When things you've done turn out poorly, how often do you take responsibility for your behavior and its consequences?	1	2	3	4	5	DNA
2. When things you've done turn out poorly, how often do you blame others?	1	2	3	4	5	DNA
3. When you are faced with a decision, how often do you take responsibility for making a decision about it?	1	2	3	4	5	DNA
4. When you have to make a decision, how often do you think hard about the consequences of each.	1	2	3	4	5	DNA
5. When you have to make a decision, how often do you get as much information as you can before making the decision?	1	2	3	4	5	DNA
6. When you have to make a decision, how often do you first discuss it with others?	1	2	3	4	5	DNA
7. When you have to make a decision about your sexual behavior (for example, going out on a date, holding hands, kissing, petting, or having sex), how often do you take responsibility for the consequences?	1	2	3	4	5	DNA
8. When you have to make a decision about your sexual behavior, how often do you think hard about the consequences of each possible choice?	1	2	3	4	5	DNA
9. When you have to make a decision about your sexual behavior, how often do you first get as much information as you can?	1	2	3	4	5	DNA
10. When you have to make a decision about your sexual behavior, how often do you discuss it with others?	1	2	3	4	5	DNA
11. When you have to make a decision about your sexual behavior, how often do you make it on the spot without worrying about the consequences?	1	2	3	4	5	DNA
12. When a friend wants to talk with you, how often are you able to clear you mind and really listen to what your friend has to say?	1	2	3	4	5	DNA

13. When a friend is talking with you, how often do you ask questions if you don't understand what your friend is saying?	1	2	3	4	5	DNA
14. When a friend is talking with you, how often do you nod your head and say "yes" or something to show that you are interested?	1	2	3	4	5	DNA
15. When you want to talk with a friend, how often are you able to get your friend to really listen to you?	1	2	3	4	5	DNA
16. When you talk with a friend, how often do you ask for your friend's reactions to what you've said?	1	2	3	4	5	DNA
17. When you talk to a friend, how often do you let your feelings show?	1	2	3	4	5	DNA
18. When you are with a friend, how often do you let that friend know that you care?	1	2	3	4	5	DNA
19. When you talk with a friend, how often do you include statements like "my feelings are . . . ," "the way I think is . . . ," or "it seems to me"?	1	2	3	4	5	DNA
20. When you are alone with a date or boy/girlfriend, how often can you tell him/her your feelings about what you want to do and do not want to do sexually?	1	2	3	4	5	DNA
21. If a boy/girl puts pressure on you to be involved sexually and you don't want to be involved, how often do you say "no"?	1	2	3	4	5	DNA
22. If a boy/girl puts pressure on you to be involved sexually and you you don't want to be involved, how often do you success in stopping it?	1	2	3	4	5	DNA
23. If you have sexual intercourse with your boy/girlfriend, how often can you talk with him/her about birth control?	1	2	3	4	5	DNA
24. If you have sexual intercourse and want to use birth control, how often do you insist on using birth control?	1	2	3	4	5	DNA

Part II

In this section, we want to know how uncomfortable you are doing different things. Being "uncomfortable" means that it is difficult for you and it makes you nervous and uptight. For each item, circle the number that describes you best, but if the item doesn't apply to you, circle DNA.

Circle: 1 = if are *comfortable*.
2 = if you are *a little uncomfortable*.
3 = if you are *somewhat uncomfortable.*
4 = if you are *somewhat uncomfortable*.
5 = if you are *very uncomfortable*.
DNA = if the question *does not apply* to you..

25. Getting together with a group of friends of the opposite sex.	1	2	3	4	DNA
26. Going to a party.	1	2	3	4	DNA
27. Talking with teenagers of the opposite sex.	1	2	3	4	DNA
28. Going out on a date.	1	2	3	4	DNA
29. Talking with friends about sex.	1	2	3	4	DNA
30. Talking with a date or boy/girlfriend about sex.	1	2	3	4	DNA
31. Talking with parents about sex.	1	2	3	4	DNA
32. Talking with friends about birth control.	1	2	3	4	DNA
33. Talking with a date or boy/girlfriend about birth control.	1	2	3	4	DNA
34. Talking with parents about birth control.	1	2	3	4	DNA
35. Expressing concern and caring for others.	1	2	3	4	DNA
36. Telling a date or boy/girlfriend what you want to do and do not want to do sexually.	1	2	3	4	DNA
37. Saying "no" to a sexual come-on.	1	2	3	4	DNA
38. Having your current sex life, whatever it may be (it may be doing nothing, kissing, petting, or having intercourse).	1	2	3	4	DNA

If you are not having intercourse, circle DNA in the four questions listed below.

39. Insisting on using some form of birth control, if you are having sex.	1	2	3	4	DNA
40. Buying contraceptives at a drug store, if you are having sex.	1	2	3	4	DNA
41. Going to a doctor or clinic for contraception, if you are having sex.	1	2	3	4	DNA
42. Using some form of birth control, if you are having sex.	1	2	3	4	DNA

Part 3

Circle the correct answer to the following two questions.

43. Have you ever had sex (sexual intercourse)? Yes No

44. Have you had sex (sexual intercourse) during the last month? Yes No

Part 4

The following questions ask how many times you did some things during the last month. Put a number in the right hand space to show the number of times you engaged in that activity. If you did not do that during the last month, put a "0" in the space.

Think *carefully* about the times that you have had sex during the last month. Think also about the number of times you did not use birth control and the number of times you used different types of birth control.

45. Last month, how many times did you have sex (sexual intercourse)? _____ times in the last month

46. Last month, how many times did you have sex when you or your partner did not use any birth control? _____ times in the last month

47. Last month, how many times did you have sex when you or your partner used diaphragm, withdrawal (pulling out before releasing fluid), rhythm, (not having sex on fertile days), or foam without condoms? _____ times in the last month

48. Last month, how many times did you have sex when you or your partner used the pill, condoms (rubbers) or an IUD? _____ times in the last month

If you add your answers to Questions 46,47, and 48, the total number should equal your answer to Question 45. (If it does not please correct your answers).

49. During the last month, how many times have you had a conversation discussion about sex with your parents? _____ times in the last month

50. During the last month, how many times have you had a conversation or discussion about sex with your friends? _____ times in the last month

51. During the last month, how many times have you had a conversation or discussion about sex with a date or boy/girlfriend? _____ times in the last month

52. During the last month, how many times have you had a conversation or discussion about birth control with your parents? _____ times in the last month

53. During the last month, how many times have you had a conversation or discussion about birth control with your friends? _____ times in the last month

54. During the last month, how many times have you had a conversation or discussion about birth control with a date or boy/girlfriend? _____ times in the last month

APPENDIX G

File Review Variables

PSYCHOSOCIAL
Mental Health History
- Inpatient Hospitalization
- Outpatient Treatment
- Suicide
- Self-Mutilation

Past Diagnoses
Family History
- Family Substance Abuse History
- Family Criminal History
- Family Mental Health History

Antisocial Behavior History
- Substance Abuse
- Truancy
- Runaway
- Shoplift/Steal
- Fighting
- Verbal Aggression
- Fires-setting
- Weapon Use
- Destruction of Property

Past Charges of Non-Victim Involved Offenses
- Criminal Mischief
- Theft
- Burglary
- Trespassing
- Tampering with a Witness
- Arson
- Disorderly Conduct
- Unauthorized Use of Property
- Breach of Peace
- Impairing a Minor

ABUSE HISTORY
- Physical Abuse?
- Sexual Abuse?
- Multiple Sexual Victimizations?

Type of Sexual Abuse Experienced:
- Vaginal Intercourse
- Fondle
- Digital Penetration
- Oral Genital Contact

- View Pornography
- Anal Intercourse
- Forced Sex with Another
- Sadistic Acts
- Co-perpetrator Present

Level of Coercion
- Verbal Threat
- Physical Aggression

Relationship to Abuser(s)
Gender of Abuser(s)
Relationship to Victim(s)
Location of Incident(s)
- Private Home
- Public Place
- Institution (e.g., Treatment Ctr.)

OFFENSE BEHAVIORS (SA GROUP ONLY)
Offense Behavior(s)
- Vaginal Intercourse
- Fondle
- Digital Penetration
- Kissing
- Fondle Breasts
- Anal Penetration w/ Object
- Exposure
- Oral – Genital Contact

Co-perpetrator Present
Babysitting
Level of Coercion
- Verbal Threat
- Physical Aggression

Reason(s) Provided for Offense

APPENDIX H

Parent/Guardian Consent Form – NA Group

Dear Parents/Guardians,

Your daughter is being invited to participate in a research project on adolescent girls' aggression and sexual behaviors as part of a community "control" group of girls who do not have problems with aggression. The project is being conducted by Elizabeth Kubik, a clinical psychology graduate student at the University of Maine. There is a substantial body of literature on aggression in boys, but there is little information available on female aggression. For this study, the information gathered from the community control group will be compared with that collected on girls who have problems with sexual and/or non-sexual aggression in order to learn how these two groups differ in their attitudes about aggression. Through this research we hope to learn more about treating girls with problems with aggression.

What is involved? This project involves filling out six questionnaires. The first questionnaire asks about beliefs regarding sexually aggressive behavior (e.g.. "Some people are shy about asking for sex so they really want you to force them"). The second questionnaire contains a range of questions about attitudes about sex (e.g., "People should have sex only if they are married"), and behaviors related to sex (e.g., "Are you comfortable saying 'no' to a sexual come-on?" "Have you ever had sex?"). The third questionnaire asks about beliefs about general aggressive behaviors (e.g., "If someone gets beat up, it's usually his or her own fault"). The fourth questionnaire contains several brief descriptions of sexual encounters and acts between an adolescent girl and a younger boy. Girls will be asked to judge various aspects of the situations (e.g., "Do you think the boy could benefit from this experience?"). Finally, the fifth and sixth questionnaires ask about common feelings and behaviors (e.g., "I am happy most of the time).

If you agree to allow your daughter to participate, Ms. Kubik will schedule a meeting to explain the study to her. Elizabeth can meet with your daughter at the University of Maine Psychological Services Center or, if you prefer, she can come to your home to meet with your daughter. If, after hearing about the study, your daughter agrees to participate, she will be asked to complete the questionnaires during a 1-2 hour session. The questionnaire session can either take place at the time of the first scheduled meeting or be scheduled for a later date. Before filling out the questionnaires, Ms. Kubik will check your daughter's reading ability by asking her to read some words out loud. Your daughter will be offered $15 as compensation for the time that it takes complete the questionnaires.

Will answers be private? All information obtained for this project will be private. The information will be used only for research purposes. Names will not be connected with the answers provided by your daughter. Each girl will be given an identification number that will protect her privacy, and the researchers will identify your daughter using this identification number. Ms. Kubik will keep a list of names and identification numbers

which will be stored separately from the data, in a locked file cabinet. Only Ms. Kubik will have access to this list. The questionnaires and other information from the study will be shredded when the study is completed (in approximately 2 years).

Who is involved? As mentioned above, Elizabeth Kubik is the primary researcher on this project. In addition, Jeffrey Hecker, Ph.D., an Associate Professor of Psychology and the Director of Psychological Services at the University of Maine, and Geoffrey Thorpe, Ph.D., ABPP, a Professor of Psychology at the University of Maine, will supervise this research. Both Drs. Hecker and Thorpe are licensed clinical psychologists.

What are the risks and benefits? We have taken care to consult with the staff of [NAME OF GROUP/ORGANIZATION] in the coordination of this project. There is a chance that your daughter may feel uncomfortable answering some of the questions. She will be told that she does not have to answer a question if she does not want, and she is free to stop participating at any time. Also, if your daughter indicates that she is distressed at any time, her concerns will be told to one of the faculty sponsors, either Dr. Hecker or Dr. Thorpe, both of whom are licensed clinical psychologist. Dr. Hecker or Thorpe will then decide if any additional steps should be taken. This research will be very valuable in helping us learn more about sexually aggressive behaviors in girls. That knowledge will help us to develop programs designed to help girls who have problems with sexually aggressive behaviors.

What do I need to do? Please fill out and return the attached form and mail it to Elizabeth Kubik in the enclosed self-addressed stamped envelope.

Questions? Please feel free to call Elizabeth Kubik (581-2022) or Dr. Jeffrey Hecker (581-2065) if you have any questions.

We hope that you will allow your daughter to be involved in this project. Thank you very much for your consideration.

Sincerely,

Elizabeth K. Kubik
Doctoral Candidate

Jeffrey Hecker, Ph.D.
Associate Professor of Psychology
Director of Psychological Services

Parent/Guardian consent for University of Maine research project on aggressive sexual behavior conducted by Elizabeth Kubik, B.A., Jeffrey Hecker, Ph.D., and Geoffrey Thorpe, Ph.D.

_____ Yes, my child can participate

Child's Name:_____ Age:_____

Parent/Guardian Signature:_____

APPENDIX I

Parent/Guardian Consent Form – SA and PA Groups

Dear Parents/Guardians,

Your daughter is being invited to participate in a research project on adolescent girls' aggression and sexual behaviors. The project, which is being conducted by Elizabeth Kubik, a clinical psychology graduate student at the University of Maine as part of her dissertation research, has been approved by Germaine Lawrence. Through this research we hope to learn more about treating aggressive and sexually aggressive behaviors in girls. Researchers have gathered information on these behaviors in boys, but there is little information available on these behaviors in girls. To better help girls, such as your daughter, who have problems with aggressive and/or sexually aggressive behaviors, we first need to know more about the nature of these behaviors in girls.

What is involved? This project involves filling out six questionnaires. The first questionnaire asks about beliefs regarding sexually aggressive behavior (e.g., "Some people are shy about asking for sex so they really want you to force them"). The second questionnaire contains a range of questions about attitudes about sex (e.g., "People should have sex only if they are married"), and behaviors related to sex (e.g., "Are you comfortable saying 'no' to a sexual come-on,"' "Have you ever had sex?"). The third questionnaire asks about beliefs about general aggressive behaviors (e.g., "If someone gets beat up, it's usually his or her own fault"). The fourth questionnaire contains several brief descriptions of sexual encounters and acts between an adolescent girl and a younger boy. Girls will be asked to judge various aspects of the situations (e.g., "Do you think the boy could benefit from this experience?"). Finally, the fifth and sixth questionnaires ask about common feelings and behaviors (e.g., "I am happy most of the time). In addition to the questionnaires, Ms. Kubik will review your daughter's records to obtain background information, such as her age, the reason for her referral to Germaine Lawrence, and the length of her stay at Germaine Lawrence so far.

If you agree to allow your daughter to participate, Ms. Kubik will meet with her individually to explain the study to her. If, after hearing about the study, your daughter agrees to participate, she will be asked to complete the questionnaires during a 1-2 hour session.. Before filling out the questionnaires, Ms. Kubik will first check her reading ability by asking her to read some words out loud. Your daughter's counselor at Germaine Lawrence will be available to talk about any issues or concerns that she may have relating to the issues covered by the questionnaires. All efforts will be made not to interfere with class time or school activities. Your daughter will be offered $15 as compensation for the time that it takes her to fill out the questionnaires.

Will answers be private? All information obtained for this project will be private. The information will be used only for research purposes. Names will not be connected with the answers provided by your daughter. Each girl will be given an identification number that will protect her privacy, and the researchers will identify your daughter using this

identification number. Ms. Kubik will keep a list of names and identification numbers, which will be stored separately from the data, in a locked file cabinet. Only Ms. Kubik will have access to this list. The questionnaires and other information for the study will be shredded when the study is completed (in approximately 2 years).

Who is involved? As mentioned above, Elizabeth Kubik is the primary researcher on this project. In addition, Jeffrey Hecker, Ph.D., an Associate Professor of Psychology and the Director of Psychological Services at the University of Maine, and Geoffrey Thorpe, Ph.D., ABPP, a Professor of Psychology at the University of Maine, will supervise this research. Drs. Hecker and Thorpe are both licensed clinical psychologists.

What are the risks and benefits? We have taken care to consult with the staff at Germaine Lawrence in the construction of this project. There is a chance that your daughter may feel uncomfortable answering some of the questions. She will be told that she does not have to answer a question if she does not want, and she is free to stop participating at any time. Also, if your daughter indicates that she is distressed at any time, her counselor will be told and will check-in with her. This research will be very valuable in helping us learn more about sexually aggressive behaviors in girls. That knowledge will help us to develop programs designed to help girls who have problems with sexually aggressive behaviors.

What do I need to do? Please fill out and return the attached form and mail it to Elizabeth Kubik in the enclosed self-addressed stamped envelope.

Questions? Please feel free to call Elizabeth Kubik (581-2022) or Dr. Jeffrey Hecker (581-2065) if you have any questions.

We hope that you will allow your daughter to be involved in this project. Thank you very much for your consideration.

Sincerely,

Elizabeth K. Kubik
Doctoral Candidate

Jeffrey Hecker, Ph.D.
Associate Professor of Psychology
Director of Psychological Services

Parent/Guardian consent for University of Maine research project on aggressive sexual behavior conducted by Elizabeth Kubik, B.A., Jeffrey Hecker, Ph.D., and Geoffrey Thorpe, Ph.D.

_____ Yes, my child can participate

Child's Name:_____ Age:_____

Parent/Guardian Signature:_____

APPENDIX J

Assent Script – NA Group

Hi, my name is Beth, and I am from the University of Maine. I am here today because I want to learn about aggression and sexual behaviors in teenage girls. I am most interested in your beliefs about aggression, sexual behaviors, and aggressive sexual behaviors.

This project involves filling out six questionnaires during a 1-2 hour long sessions. The first questionnaire asks about beliefs regarding sexually aggressive behavior (e.g., "Some people are shy about asking for sex so they really want you to force them"). The second contains a range of questions about attitudes about sex (e.g., "People should have sex only if they are married"), and behaviors related to sex (e.g., "Are you comfortable saying 'no' to asexual come-on?" "Have you ever had sex?"). The third questionnaire asks about beliefs about general aggressive behaviors (e.g., "If someone gets beat up, it's usually his or her own fault"). The fourth questionnaire contains several brief descriptions of sexual encounters between an adolescent girl and a younger boy. You will be asked to judge various aspects of the situations (e.g., "Do you think the boy could benefit from this experience?"). Finally, the fifth and sixth questionnaires ask about common feelings and behaviors (e.g., "I am happy most of the time). Before you fill out the questionnaires, I will first check your reading ability by asking you to read some words out loud for me.

There are no right or wrong answers to the questions. If you do not understand a question, you can let me know and I will explain it to me. There is a chance that you may feel somewhat uncomfortable answering some of the questions. You can skip any question that you do not want to answer. If, at any point, you decide that you don't want participate anymore, it is fine to stop. You are welcome to talk to me about how you felt about the questions, or ask me for more information about this topic. If you indicate that you are very distressed about something, I must tell one of the psychologists who supervises my work, so we can provide the appropriate help for you if necessary.

Although I must let my supervising psychologist know if you become distressed, your answers will be kept private. To ensure your privacy, your name will not be put on the answer sheets, Instead, you will be identified by an identification number. I will keep a list of names and identification numbers, which will be stored separately from the questionnaires, in a locked file cabinet. Only I will have access to this list.

We sent a letter home to your parents/guardians and they agreed to let you participate in this project, but we would like to get your permission also. If you decide to participate, we will pay you $15 as compensation for the time that it takes you to fill out the questionnaires. At this time, please tell me if you do or do not want to participate.

APPENDIX K

Assent Script – SA and PA Groups

Hi, my name is Beth, and I am from the University of Maine. I am here today because I want to learn about aggression and sexual behaviors in teenage girls. I am most interested in your beliefs about aggression, sexual behaviors, and aggressive sexual behaviors.

This project involves filling out six questionnaires during a 1-2 hour long sessions. The first questionnaire asks about beliefs regarding sexually aggressive behavior (e.g., "Some people are shy about asking for sex so they really want you to force them"). The second questionnaire contains a range of questions about attitudes about sex (e.g., "People should have sex only if they are married"), and behaviors related to sex (e.g., "Are you comfortable saying 'no' to a sexual come-on?" "Have you ever had sex?"). The third questionnaire asks about beliefs about general aggressive behaviors (e.g., "If someone gets beat up, it's usually his or her own fault"). The fourth questionnaire contains several brief descriptions of sexual encounters between an adolescent girl and a younger boy. You will be asked to judge various aspects of the situations (e.g., "Do you think the boy could benefit from this experience?"). Finally, the fifth and sixth questionnaires ask about common feelings and behaviors (e.g., "I am happy most of the time). Before you fill out the questionnaires, I will first check your reading ability by asking you to read some words out loud for me.

There are no right or wrong answers to the questions. If you do not understand a question, you can let me know and I will explain it to you. There is a chance that you may feel somewhat uncomfortable answering some of the questions. You can skip any question that you do not want to answer. If, at any point, you decide that you don't want participate anymore, it is fine to stop. You are welcome to talk to me about how you felt about the questions, or ask me for more information about this topic. Also, your counselor is familiar with these questionnaires, so you can talk with him or her about any questions or concerns. If you indicate that you are very distressed about something, I must to let your counselor know this so that he or she talk it over with you.

Although I must let your counselor know if you become distressed, your answers will be kept private. To ensure your privacy, your name will not be put on the answer sheets. Instead, you will be identified by an identification number. I will keep a list of names and identification numbers, which will be stored separately from the questionnaires, in a locked file cabinet. Only I will have access to this list.

We sent a letter home to your parents/guardians and they agreed to let you participate in this project, but we would like to get your permission also. If you decide to participate, we will pay S 15 as compensation for the time that it takes you to fill out the questionnaires. At this time, please tell me if you do or do not want to participate.

APPENDIX L

NA Group Screening Questionnaire

Have you had problems with sexually aggressive behaviors?

Have you had problems with physically aggressive behaviors?

Do you have past criminal charges relating to an offense involving an victim (e.g., verbal threat, assault)?

APPENDIX M

Background Information Sheet

Name:_____
Age:_____ Date of Birth:_____
What town and state do you live in?_____
Are your parents (circle one): married separated divorced never married
How many siblings do you have (not including yourself):_____
Is your mother employed? Yes No (circle one)
If yes, what is her occupation:_____

Is your father employed? Yes No (circle one)
If yes, what is his occupation:_____

If you have a step-mother or step-father, please answer one or both:
Is your step-mother employed? Yes No (circle one)
If yes, what is her occupation:_____

Is your step-father employed? Yes No (circle one)
If yes, what is his occupation:_____

APPENDIX N

Debriefing Statement - NA Group

Thank you for your participation in this study on teenage girls' beliefs about aggression and sexual aggression. By administering these questionnaires to you today, I hope to find out more about treating aggressive and sexually aggressive behavior in girls. Researchers have gathered information on these behaviors in boys, but there is little information available on these behaviors in girls. To better help girls who have problems with aggression, we first need to know more about the nature of these behaviors in girls. In addition to collecting information from girls such as yourself, who do not have histories of aggressive problems, we are also administering these questionnaires to teenage girls who have engaged physically aggressive behaviors such as physical assault or sexually aggressive behaviors, such as sexual molestation of a younger child. Most of those girls are being recruited from residential treatment centers for girls with emotional and behavioral problems. We plan to compare these different groups to see if there are any substantial differences in beliefs about physical aggression and sexual aggression. Learning about similarities and differences between these groups of girls might improve our understanding of how to treat girls with these different types of aggression problems.

If you have any questions or comments regarding this study or the findings of this study, please feel free to contact me, Elizabeth Kubik at (207) 581-2022, or Dr. Jeffrey Hecker at (207) 581-2034 (you may call Dr. Hecker collect). You may also speak with me before I leave today.

APPENDIX O

Debriefing Statement - SA and PA Groups

Thank you for your participation in this study on teenage girls' beliefs about aggression and sexual aggression. By administering these questionnaires to you today, I hope to find out more about treating aggressive and sexually aggressive behavior in girls. Researchers have gathered information on these behaviors in boys, but there is little information available on these behaviors in girls. To better help girls, such as yourselves, who have problems with aggression, we first need to know more about the nature of these behaviors in girls. In addition to collecting information from girls at your program today, we are also administering the questionnaires to girls in the community who do not have identified problems of aggression. We plan to compare the different groups of girls to see if there are any substantial differences in beliefs about physical aggression and sexual aggression. Learning about similarities and differences between these groups of girls might improve our understanding of how to treat girls with these different types of aggression problems.

If you have any questions or comments regarding this study or the findings of this study, please feel free to contact me, Elizabeth Kubik at (207) 581-2022, or Dr. Jeffrey Hecker at (207) 581-2034 (you may call Dr. Hecker collect). You may also speak with me before I leave today.

BIOGRAPHY OF THE AUTHOR

Elizabeth K. Kubik was born in Boston, Massachusetts on November 20, 1968. She graduated from Lincoln-Sudbury Regional High School in Sudbury, Massachusetts, in 1986. She obtained a Bachelor of Arts degree in government from Colby College in Waterville, Maine, in 1990. Following graduation, she worked as a research associate at the University of Vermont Substance Abuse Treatment Center and took post-baccalaureate classes in psychology at the University of Vermont.

In the Fall of 1996, Ms. Kubik entered the graduate program in clinical psychology at the University of Maine. She will complete her pre-doctoral internship at the Boston Consortium in Clinical Psychology in August, 2002. She is a candidate for the Doctor of Philosophy degree in Psychology from the University of Maine in August, 2002.