

**A Comparison of Father-, Stepfather-, and Brother-Perpetrated Incest Abuse of
Incarcerated Women and Girls**

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ABSTRACT

Research on incestuous child abuse (ICA) has focused primarily on father-daughter incest (FDI), and to a lesser extent, on stepfather-daughter incest (SFDI). The sparse research on brother-sister incest (BSI) indicates that it is not only at least as prevalent as FDI and SFDI, but that the seriousness of the abuse and the long-term impacts are greater. At the same time, research over the past few decades has increasingly noted the relationship between childhood sexual abuse as a risk factor for girls' and women's offending. The current study uses two self-report survey samples, one of incarcerated women and the other of incarcerated girls, to compare the respondents' FDI, SFDI, and BSI rates and whether these rates are related to outcome variables such as alcohol/drug use and problems, self-esteem, self-harming behaviors, and for the sample of girls, likelihood of a pregnancy. The findings in this study indicate not only exceptionally high sexual victimizations by fathers, stepfathers, and brothers, but that among the incarcerated women, brothers sexually abuse more often and at more serious levels than fathers and stepfathers. The incarcerated women's and girls' likelihood of drug/alcohol, self-esteem, and self-harming behaviors were very much related to ICA, particularly ICA perpetrated by brothers, and if the women/girls had multiple (father, stepfather, or brother) abusers.

INTRODUCTION

Incestuous child abuse (ICA) has been defined as “[a]ny kind of exploitative sexual contact or attempted sexual contact, that occurred between relatives, no matter how distant the relationship, before the victim turned 18 years old” (Russell, 1984, p. 181). ICA was first addressed as a serious social problem starting in the late 1970s, and this began primarily with feminist clinicians, feminist researchers, and incest survivors (Russell, 1986, p. 3-4). Since 1978, the vast majority of the research on ICA focuses on father-daughter incest (FDI) and stepfather-daughter-incest (SFDI), with far less attention on brother-sister incest (BSI). This is troubling as a number of studies report BSI as the most common form of ICA (Alpert, 1997; Canavan, Meyer, & Higgs, 1992; Carlson, Maciol, & Schneider, 2006; Cole, 1982; Smith & Israel, 1987; Thompson, 2009). Indeed, research indicates that sibling incest is estimated to be five times more prevalent than father-perpetrated or stepfather-perpetrated incest (Canavan et al., 1992; Cole, 1982; Finkelhor, 1980; Smith & Isreal, 1987), and one study of child-on-child sexual abuse found nearly half of the cases were sibling victimizations (Shaw et al., 2000).

Given the dearth of research on brother-sister incest (BSI), the prevalence rates are often only rough estimates. Yet some believe that BSI rates are considerably under-reported even compared to other types of incest (Canavan et al., 1992; Russell, 1986). Canavan et al. (1992) posit that this underreporting is a consequence of sibling incest being viewed as less traumatic than adult-child incest because there are no generational boundaries being violated; or possibly because in adult-child incest cases it is easier to punish the adult than it is to blame the child offender in sibling incest victimization. Russell (1986) proposes that another factor that could distinguish sibling from other incest abuses is that mutuality is more often assumed with BSI,

making it the most discounted of all types of family sexual abuse. Although not specifically addressing sexual abuse, Button and Gealt (2010) report that “sibling violence occurs more frequently than other forms of child abuse” (p. 131).

The sibling bond has been argued to be one of the most impactful relationships during childhood development (e.g., Hardy, 2001; Thompson, 2009). Increasingly, scholars and practitioners have begun to recognize that BSI is not usually mutual, and that it can have severe, long-term negative effects for its victims (Phillips-Green, 2002; Rudd & Herzberger, 1999; Wiehe, 1990). Indeed, most sibling incest scholars maintain that sibling incest is as traumatic for its victims as father-daughter incest (FDI) or stepfather-daughter incest (SFDI) (Adler & Shutz, 1995; Alpert, 1997; Carlson et al., 2006; Cole, 1982; Cyr, Wright, McDuff, & Perron, 2002; Jacobs, 1994; Laviola, 1992; McVeigh, 2003; Phillips-Green, 2002; Rudd, & Herzberger, 1999; Shaw, Lewis, & Loeb, 2000; Wiehe, 1990). One study found that sibling incest is far more serious than FDI in terms of both use of force and duration of the abuse (Rudd & Herzberger), and another reported that compared to FDI and SFDI, BSI is more severe, including the levels of penetration (Cyr et al., 2002). In light of these findings, further research must be gathered to determine the long-term impact on victims of brother-perpetrated incest.

For the scope of the current study, incest will be defined as sexual acts such as inappropriate touching and fondling; indecent exposure; masturbation; oral sex, anal sex, and digital penetration; and intercourse. These acts are perpetrated without consent, and by use of overt or implied force and/or coercion, or where there is a power differential in the relationship (Adler & Schutz, 1995, Canavan et al., 1992; Shaw, Lewis, Loeb, Rosado, & Rodriguez, 2000; Wiehe, 1990). Furthermore, the current study will examine the brother-sister dyad, and not sister-perpetrated incest occurrences, because research reveals that BSI that is initiated by the

brother is the most frequent and harmful coupling of sibling incest (Caffaro & Con-Caffaro, 1998; Carlson et al., 2006; Russell, 1986).

As previously indicated, FDI and SFDI are more easily defined as abusive given that it is generally accepted that any sexual behavior performed by an adult with a child would constitute sexual abuse (Carlson, Maciol, & Schneider, 2006). The definitional lines are murkier and can be more complicated when examining sexual abuse between siblings, partly due to the fact that it is underreported and under-researched (Abrahams & Hoe, 1994; Adler & Schutz, 1995), and partly because it can be mutual and exploratory, and not necessarily abusive. For example, Finkelhor's (1980) study suggests that sexual contact between siblings can be explorative-sex-play and that some subjects will report the experience as positive, offering the potential for beneficial long term sexual development. Unfortunately, this idea could be the reason both parents and professionals have discounted occurrences of abusive sibling incest, leading them to believe that it is always or usually harmless, normal exploration (Abrahams & Hoey, 1994).

On the other hand, in Russell's (1986) sample of 930 women, very few women reported their sibling sexual experiences as positive and were much more likely to convey a negative impact. Further, Cole (1982) found that sibling incest is not benign, even when both participants report the experience as positive. In terms of sibling abuse definition, more recent research conducted by Carlson, Maciol, and Schneider's (2006) helps differentiate between sibling sex play and sexual contact that is exploitive and consequently defined as abusive. These definitional constraints include: differentials in age; type of sexual behavior; the frequency and duration; motivation (curiosity versus exploitation); and mutuality of the event(s) (Carlson et al., 2006).

Based on two anonymous survey studies, the current study reports and compares incarcerated women's and girls' incestuous sexual abuse, comparing father, stepfather, and

brother perpetrators. The frequencies and types of abuse will be examined to see how they relate to specific measures of self-esteem, psychological well-being, and drug and alcohol use. It is important to consider the long term effects for girls who are victims of incest. Given the research reviewed thus far that identifies BSI as both potentially more frequent and harmful than FDI or SFDI, BSI should be viewed as a serious form of intrafamilial sexual abuse and deserves more recognition by researchers and clinicians alike.

LITERATURE REVIEW

This section of this thesis reviews the existing research on the types of sibling incest, contexts of incestuous families, age and power differentials, consent versus force, secrecy and disclosure, long-term effects, and theoretical framework. The literature section is followed by the theoretical perspective guiding the current study. Although the previous and current sections report some of the frequency rates of BSI, FDI, and SFDI, Figure 1 (in the Appendix) is a chart that summarizes the extant studies on BSI, where and how the data were collected, and findings (if available) on how BSI compared to FDI and SFDI and other frequencies and relationships.

The research summarized in Figure 1, reported in order of the year published, indicates generally epidemic levels of BSI, FDI, and SFDI in the non-incarcerated samples used in all of the studies. The earliest study, one of both female and male college students, by Finkelhor (1980), found that 15 percent of women in college/university report sibling incest experiences (and 10% of men in college report these experiences). About two-fifths (43%) occurred when the respondent was 8 years old or younger, and one-quarter were identified as exploitative by the respondent, but Finkelhor does not distinguish either the age or exploitation characteristics by gender. Russell's (1986) study of self-reported childhood incest victimizations, found that girls

were about twice as likely to be sexually victimized by a father figure (4.5%) compared to a brother (2.2%).

Types of Sibling Incest

Canavan et al. (1992) have categorized two major types of sibling incest that commonly occur. The first type is *nurturance-oriented* and is characterized by siblings providing nurturance for one another based on compassion, in a home where abuse or neglect is occurring. They note that although this type of incest may provide a safe haven for the siblings, it still has the potential to negatively affect childhood development. The second type of incest is *power-oriented*, where the relationship exhibits elements of power, force, and even violence to victimize the weaker sibling. Canavan et al. (1992) also suggest that the incestuous relationship could contain elements of both types.

Adler and Schutlz's (1995) study of 12 boys who sexually abused their sisters in Quebec, (see Figure 1) Canada found that all of the cases included fondling/undressing, almost three-fifths (58%) included fellatio, over four-fifths (83%) included cunnilingus, one-third (33%) included penile-vaginal penetration, one-quarter (25%) included "intercourse to ejaculation," and 8 percent included anal penetration. Given that the sample came from victims in an outpatient psychiatric clinic, these may be more extreme/abusive cases than what is in the general public.

Contexts of Incestuous Families

Research conveys that often BSI is a manifestation of family dysfunction, and common characteristics can be seen within these family structures (McVeigh, 2003; Phillips-Green, 2002; Thompson, 2009). Hardy (2001) reveals, "Often, the family is characterized by a physically absent but powerful father, an emotionally distant mother who bears the burden of sole responsibility for the children, and an older sibling (usually a male) who is often placed in the

position of providing care for younger siblings” (p. 257). Another common trait of sibling incest families, is where siblings seek nurturance and comfort from one another, alternative to any belief that it could be motivated by a desire for sexual gratification (Thompson, 2009). Adler & Schutz (1995) discovered that abusive children were commonly abused and neglected by their parents. Smith and Isreal (1987) report common dynamics in families with sibling incest include: parents that were inaccessible and distant both physically and/or emotionally, the parent-created home climate exhibits overt sexual behavior viewed by the children, or the alternate form-repressed sexuality, and a family that maintains secrets, primarily extramarital affairs. Canavan et al. (1992) posit that in sibling incest families there are “patterns of significant familial problems with boundary issues, communication, trust, safety, and leadership” (p.138). Other family of origin traits for incestuous families include: elevated levels of economic, personal and social stress, exaggerations of patriarchal norms, substance abuse, and punitive or harsh discipline styles with high levels of parental frustration (Haskins, 2003).

Interestingly, Rudd and Herzberger’s (1999) study of parental and sibling perpetrated incest indicates “most subjects come from intact families...and that there [is] a clear quality of ‘normalcy’ about the families. Indeed, a number of subjects referred to their parents as successful or “pillars of the community” (p. 918). The phenomenon of BSI victimizations occurring within intact families is supported by the Cyr et al. (2002) and the Carlson et al. (2006) studies, which found prevalence rates of 72 and 78 percent, respectively, as rates at which BSI occurred in homes where the parents were still in a relationship (“intact”), as opposed to broken up. Rudd & Herzberger, (1999) found that although the families were intact, in both father and sibling incest abuse cases, many of the mothers of the victims were found to be emotionally absent. Smith & Israel’s (1987) work support this characteristic, finding that in both father and

sibling-incest cases, 76 percent of the mothers of victims in their study were distant or inaccessible, while 88 percent of fathers in sibling incest cases maintained these characteristics.

More recently, Caffaro & Conn-Caffaro (2005) established three types of common configurations for families that are seen as risk factors for sibling incest to occur. These include: *peripheral-parent families*, *pseudo-consensual sibling incest families*, and *pseudo-parent sibling families*. In the *peripheral-parent family* one parent maintains the more nurturing role, while the peripheral parent (the less available parent) becomes abusive. In these families, siblings could become adversarial due to a lack of supervision and support, leading to an incestuous relationship (Caffaro & Conn-Caffaro, 2005). Similar to the Canavan et al. (1992) results, in the *pseudo-consensual sibling incest family*, children living in an abusive and neglectful home may seek the nurturance and protection from one another, because it is not available from their parents. Carlson et al. (2006) emphasize that over time this type of mutual relationship could transition into one that is abusive. Alternatively, Russell (1986) highlights that while an apparent consensual relationship may be traumatic with long term effects, this type of incest would not be considered abusive. Caffaro and Conn-Caffaro's (2005) last category identified is the *pseudo-parent sibling family*. In this family, neither parent is available for the children, so a sibling may become a substitute parent and/or possibly a parentified child to a single parent. This dynamic has potential to be problematic because the pseudo-parent child develops sexuality early, and thus sexualizes other siblings in the family.

Age and Power Differentials

Historically, in incest studies, age differential has been one determinant for defining sibling sexual contact as explorative sex play, or exploitive abuse. Some researchers maintain that there were no long term negative effects when both of the siblings were under 18 years of

age, and the age differential between them was small. Within this limitation, both Finkelhor (1980) and Russell (1986) used the five year age constraint in their studies to qualify subjects as victims of incest; only including subjects in their case studies where there was at least a five year age difference between the perpetrator and the victim. In more recent studies, the trend is moving away from defining the sibling sexual contact as non-abusive if the siblings have less than a 5 year age differential. This is largely due to the determination that even if the brother is the same age, incest can still be harmful because of the power that males have over females in our society (Cole, 1982; Laviola, 1992). McVeigh (2003) argues that age disparity is not a valid indicator to determine abuse because manipulation and coercion can occur between same age siblings. Notably, in Laviola's (1992) study, more than half of the subjects perceived themselves to be forced or coerced by siblings who were less than 5 years older. In the Cyr et al. (2002) study, "54.2% of the brothers were less than 5 years older than their sisters" (p. 965), providing further evidence that the 5 year constraint is not a legitimate determinant to differentiation of abuse or non-abuse.

Although the male-female power differential cannot be proven, many analysts convey its presence in BSI cases (Canavan et al., 1992; Carlson et al., 2006; Finkelhor, 1980; McVeigh, 2003; Phillips-Green, 2002; Russell, 1986; Thompson, 2009). Cole (1982) describes the power differential in the sibling dyad to be characterized by brothers being treated better than sisters, the larger physical size of the brother, and girls being taught to obey boys. This dynamic is enhanced by gender expectations; specifically, power commonly being given to males over females in our society. One of Wiehe's (2002) participant's recalls, "I remember a vague feeling that my brother was more important than me and I should keep quiet and do what he wanted" (P81). Other researchers also report power differentials as a contributing factor in the sexual

victimization of girls' by their brothers (Carlson et al.; 2006; Monks et al., 2009; Russell, 1986; Wiehe, 1997, 2002). Abrahams and Hoey (1994) describe sibling incest offenders as maintaining a position of power relative to the other siblings; such as a privileged position with a parent and/or this child becoming a surrogate authority figure when parental supervision is lacking. Clearly the dynamics of the power differential need to be explored when considering the issue of consent; when maintained by tacit power, consent is coercively obtained by the perpetrator.

Consent vs. Force

Laviola (1992) distinguishes coercion and force. Coercion refers to coercion as bribery, any form of misuse of authority and power, and/or an appeal to the child's trust and affection. Force refers to verbal threats and physical harm such as, hitting, pushing, or pinning down in response to resistance to the sexual contact (Laviola 1992). Coercion used in intrafamilial sexual abuse can be difficult to determine because of the complexity of the relationships. The use of physical force has been one way to establish the sibling sexual relationship as abusive, instead of it being a form of mutual-sex-play. On the other hand, coercion without physical force can be very subtle, leaving the victim and offender with the belief that the abuse is consensual. One subtle form of coercion is inducing fear in the victim (Caffaro & Conn-Caffaro, 1998); because when in fear, the victim remains quiet and perhaps aids in the perpetrator framing the sexual contact as mutual. Threats, bribery, and manipulation are other forms commonly used in sibling sexual abuse. Cole affirms (1982) "... brothers used bribery and coercion, ingredients present in every instance of sibling incest that has come to my attention" (p. 85). Caffaro and Conn-Caffaro (1998) argue that sibling sexual abuse is based on coercion and manipulation, even though physical force may not always be present.

Rudd and Huerzberger's (1999) study of 62 women attending incest-survivor support groups, compared 15 father-perpetrated incest cases with 14 brother-perpetrated incest cases (see Figure 1). This is a small sample for comparison. They found fathers (64% and 60%) were more likely than brothers (45% and 45%) to (1) use threat of force and (2) inflict pain or injury, respectively. Brothers (64%) were more likely than fathers (53%) to use actual force. Brothers and fathers were equally likely (50% of both) to use bribes. Cyr and colleagues' (2002) study comparing FDI, SFDI, and BSI found brothers (30%) used twice as much force as fathers (14% and stepfathers (13%); brothers (87%) fondled and touched genitals three times as often as stepfathers (27%) and over twice as often as fathers (35%); and brothers (71%) were twice as likely as fathers (35%) and more than twice as likely as stepfathers (27%) to have intercourse with the victims (see Figure 1).

Secrecy and Disclosure

In the case of brother-perpetrated incest victimization against sisters, both the victim and the perpetrator are members of the family, creating numerous unspoken barriers to disclosure. Canavan et al. (1992) confirm that a common theme in sibling incest is enforced secrecy. They report that enforced secrecy is evidenced when "sexualized contact *which is kept secret due to fear, coercion or threat* cannot be considered harmless sex play" (137). Phillips-Green (2002) posits, "Secrecy has been [a] consistent condition for most sibling incest and has been secured from victims by offenders using power and control on various forms" (p. 196). Barriers to disclosure described by O'Brien's (1991) clinical experience "...reveals that victims of incest are likely to be implicated gradually as coconspirators by the abusive siblings so they will share in the responsibility, blame, and punishment for the behavior if the "secret" is disclosed. Once established, this dynamic makes it difficult for victims to resist offenders' more intrusive sexual

demands” (p. 79). Other times, the abuse is kept a secret not because of force and threats, but because guilt and shame keep the victim quiet, while she may feel it is her fault. This is evidenced in a case study conducted by Canavan et al. (1992), when one of the women shares, “[my brothers] did not threaten or overtly coerce [me] or tell [me] to keep the contact a secret; [my] guilt and shame ensured that” (p. 134). Feelings of guilt and shame commonly persist in incest cases, thus perpetuating the silence.

In the overall incest taboo, it is less taboo to have sexual relations in the brother-sister dyad, than in the father-daughter or stepfather-daughter dyad. This is likely another reason that disclosure in BSI may be less common than in FDI and SFDI cases. Finkelhor (1980) reports that only 12 percent of the subjects who experienced sibling sexual abuse disclosed to anyone and that “not a single child who had been involved in sex with a much older sibling confided it to anyone...the pain of secrecy was added to whatever unpleasantness the experience itself involved” (p. 180). Canavan et al. (1992) suggest that the ambiguous taboo against sibling sexuality could lead women to consider themselves as willing participants, thus decreasing the likelihood of disclosure.

Some scholars report that disclosure is related to the relationship between the mother and the perpetrator. In the Cyr et al. (2002) findings, the identity of the perpetrator was indicative of the mother’s reaction. In 61 percent of the cases, when a mother was living with a new stepfather, she did not believe her daughter. Conversely, the mother believed the daughter 86 and 90 percent of the time, respectively, when the perpetrator was the brother and father. Hardy (2001), Laviola (1992), and Russell (1986) indicate that in addition to the victim-offender-relationship in incest families, other barriers to incest victims’ disclosure include fear of punishment, not being believed, and victim-blaming. Jacobs’s (1994) study of daughters

sexually abused by fathers found, "...daughters' attempts at disclosure are frequently misunderstood, [therefore] the child may develop a deep and unrelenting conviction that her mother is aware of the incest and has therefore committed an unforgivable act of betrayal" (p. 23).

Long-Term Effects

Jacobs (1994) articulates, "It is an unfortunate truth that although women may be divided by wealth, by race, or by ethnicity, sexual-violence and the trauma of incest are ties that bind women across generations" (p. 2). While it is widely accepted that FDI and SFDI have harmful long term effects on the survivors' adult functioning, recent empirical and case study literature provide evidence that BSI is equally traumatic. In recognition of the numerous deleterious effects, Rudd and Herzberger's (1999) study compared FDI to BSI and found similar sequelae: eating disorders, suicidal feelings, depression, drug or alcohol problems, sexual promiscuity, flashbacks, and nightmares. Their sample was so small (15 FDI and 14 BSI cases) that it is difficult to assess significant differences. However, that the rates usually were higher for brothers is unexpected given that the duration of the brother-perpetrated incest (average = 7.9 years) was almost half the duration of the father-perpetrated incest (average = 14.7 years). Other studies reported a wide range of effect from BSI, including low self-esteem (feelings of worthlessness and inferiority); distrust in adult, intimate relationships with men; difficulty with interpersonal relationships; repeating the victim role in adult relationships (revictimization); self-blame; sexual dysfunction expressed as avoidance or compulsivity; eating disorders; alcoholism; drug abuse; depression, and posttraumatic stress disorder (Russell, 1986; Wiehe, 2000); somatization; (Laviola, 1992), dissociation; and loss of memory (Rudd & Herzberger, 1999). Russell (1986) discovered in BSI cases that 47 percent of the women survivors never married,

supplemented by Alpert's (1997) report that 48 percent never married, indicating adult survivors' difficulty with intimate relationships. Cyr and colleagues (2002) found that victims of BSI had higher percentages of anxiety, depression, PTSD, and dissociation, than victims who were abused by a father or stepfather.

Some studies indicate incest is linked with self-mutilation, self-mutilation ideation (Shapiro, 1987; Turrell & Armsworth, 2000), and suicidal thoughts and attempts (Rudd & Herzberger, 1999). Russell (1986) found that 12 percent of women who report sexual abuse by a brother suffer deleterious long-term effects and 44 percent experience some long-term negative effects. Similarly, Jacobs's (1994) study of FDI reports that because a girl's incestuous-traumatic-victimization cannot be separated from her long-term personality formation, it affects nearly all facets of her development.

THEORETICAL FRAMEWORK

Feminist Theory

Feminist theory is a common theoretical framework for incest studies, most typically emphasizing the gendered role of power differentials. Specifically, the theory declares that violence against women and girls is directly connected to the patriarchal organization of society (Button & Gealt, 2010). James and MacKinnon (1990) state that the patriarchal culture found within society is frequently mirrored in family dynamics placing women and girls at increased risk of being abused. Button and Gealt (2010) extend, "Taking the idea that power differentials manifest family violence, this theory reasons that younger children who, in comparison to older children, lack the advantage of physical strength, responsibility (i.e., power), and knowledge and female siblings who are also less likely to possess great physical strength and power have a

greater likelihood of sibling victimization compared to older and male siblings” (p. 134). Laviola (1992) supports the use of feminist theory given incest victims’ report that, their families’ “held views about men and fathers as superior, controlling, and dominant over women and children.” One victim described her father, saying, “He was the master and we were the slaves and that relationship was true for everyone in the family” (p. 415); and another incest survivor reported that according to her father, “[women are] to clean the house and fuck” (p. 415).

Social Learning Theory

Social learning theory characteristics applicable to incest studies contend that society disproportionately socializes males to behave sexually through displays of patriarchal power and victimization (of girls and women). These behaviors are learned through imitation and reinforcement. In relation to feminist theory, Button and Gealt (2010) concur, “...because violence is rewarded with compliance and dominance, those who engage in violence and aggression internalize and utilize the advantages of such methods” (p. 134). Ultimately, social learning theory proposes that family violence is learned in the home by witnessing or being subject to abuse, and thus the behavior is mimicked because evidence of reward prevails.

Intergenerational Transfer Hypothesis

In the context of incestuous abuse, intergenerational transfer hypothesis theorizes that children who become sexual abusers were likely to have been victims of physical, verbal, and/or sexual abuse, and preceding, their parent(s) were likely to have been victims; indicating that abuse is transferred throughout generations. Among O’Brien’s (1991) incest cases, evidence leads to the hypothesis of intergenerational transmission. Similarly, Adler and Shutz (1995), Cyr et al. (2002), and Smith and Israel, (1987) present evidence for the intergenerational transfer

hypothesis, conveying that the mothers of sibling incest perpetrators were more commonly abused as girls than the mothers of non-incest sexual abusers (Monks et al. 2009).

Family Systems Theory

Because incest is a victimization that occurs within the context of the family, family system theories are of the most practically applied theoretical frameworks for prevention, further research into intrafamilial sexual abuse, and potential treatment for victims and families. As discussed in the *Family Dynamics* section above, common family characteristics often arise when researching sexual abuse within families. In relation to BSI, family systems theory “supports the understanding of the sibling relationship within the familial realm by viewing the sibling relationship as just one piece in the family puzzle” (Thompson 2009: 532). This approach highlights the importance of viewing the sibling relationship within the intimate family context, and sees that brother-sister relationships cannot be isolated from other family dynamics. Taken as a whole, family systems theory supports the idea that within the family unit, what each member does will affect the other members of the family. Another important aspect of the family systems theory is the family treatment approach. Because the incest is often occurring while the daughter still lives at home, individual treatment for her, and the family is of great importance if there is any hope for long term health of the victim, and/or family recovery. Thus far, research has shown that the most effective treatment applications have been both individual and family therapy (Phillips-Green, 2002)

METHOD

The data for this research comparing FDI, SFDI, and BSI of incarcerated women and girls comes from two existing data sets. Data Set 1 is from an anonymous survey on sexual abuse histories conducted in an Ohio women's prison (see McDaniels-Wilson & Belknap, 2008), and Data Set 2 is from an anonymous self-report study of girls and boys in Ohio delinquent institutions (see Belknap & Holsinger, 2006). The current study assesses and compares incarcerated women's (Data Set 1) and incarcerated girls' (Data Set 2) experiences with father-, stepfather-, and brother-perpetrated sexual abuse. (For the purposes of the current study, the data from the boys in the Belknap & Holsinger data were not used.)

Data Collection and Sample

A more detailed account of the sample and procedures for both data sets exists in prior publications (Belknap & Holsinger, 2006; McDaniels-Wilson & Belknap, 2008), thus this section is a brief description. Data Set 1 is a sample of incarcerated adult women and was collected in 1996 from three women's prisons in Ohio.

Table 1 summarizes the demographic characteristics of both samples (Data Sets 1 and 2). For the sample of incarcerated women (Data Set 1), their ages ranged from 18 to 70 years old, with the average age as 35.0 years old. The racial make-up of the incarcerated women was 44.6% White, 53.3% African American, 0.0% Latina, 1.6% Biracial, 0.5% Native American, and 0.0% Asian/Asian American. These women had almost 11 years as their average number of years of education, and only 14.6% had no children. (The average number of children was 2.4.) Now turning to the demographic characteristics of the incarcerated girls (Data Set 2), they ranged in age from 12 to 20 years, with the average age of 15.9 years old. The racial make-up of the incarcerated girls was 36.2% African American, 47.9% White, and 16.0% Other (Native

American, Latina, Asian-American, South African, and Biracial). The incarcerated girls' education levels were not that much lower than the incarcerated women. Recall that the average number of years of education for the women was 10.9, and for the incarcerated girls it was 8.8 years. As expected, the incarcerated girls were much less likely to have children than the incarcerated women. Fourteen percent of the incarcerated girls reported having children (See Table 1).

Measurement Instrument and Data Collection

Data Set 1 utilized the Sexual Experiences Survey (SES) as the first measure for the women's sexual abuse history. The SES is an adaptation Koss-Oros (1982) Sexual Experiences Survey because the original survey did not account for the number of times that the respondent experienced a particular violation or abuse or the gender of the offenders. The SES designed for the study conducted in Data Set 1 consisted of 15 items ranging from "someone misinterpreting the level of sexual intimacy your desire," to more intrusive, violent, sexually aggressive or assaultive behaviors. Another adaptation of the original Koss and Oros SES was to ask participants who reported experiencing a violation (a) how many times they experienced the event (ranging from 1 time to 6 or more times) and (b) the gender of the abuser(s). Further, an additional survey was used, called the Sexual Abuse Checklist Survey (McDaniels Wilson, 1995), to document the victim-offender relationship and the age of the victim at the time of the violation or abuse. For each of many potential victim-offender relationships, the women were asked to respond to whether they experienced any of the following as abuse: nudity, disrobing, genital exposure, being observed (i.e., showering, dressing, toileting), kissing, fondling, masturbation, oral sex performed on you, oral sex performed on them, finger penetration of the anus, finger penetration of the vagina, penis penetration of the vagina, and "other" (for other,

they were asked to identify what it was). For the purposes of the current study, I examined these for the father, stepfather, and brother victim-offender relationships.

Data Set 1 had the advantage over Data Set 2 in that far more detail on the levels of ICA were collected in Data Set 1. Thus for this data set I was able to report and compare FDI, SFDI, and BSI not only in overall rates, but in the rates of varying levels of sexual abuse.

Unfortunately, the only outcome variable to measure how the ICA may have impacted these incarcerated women, was whether they reported having a problem with drugs and/or alcohol.

Data Set 2 draws upon “youth-centered” 15-page, self-report surveys, permitting incarcerated girls to anonymously report their own experiences. The youth were informed that the survey would require approximately 60 minutes to complete, and the girls typically took around 45 minutes to complete the survey. Respondents placed the surveys in a blank manila envelope that was collected directly by the research staff (no institutional staff members were involved in the data collection).

Although Data Set 2 did not collect ICA in terms of varying levels of seriousness, this data set had far more outcome variables on which to compare FDI, SFDI, and BSI. Specifically, the victim-offender relationships (FDI, SFDI, and BSI) were studied to examine how they were related to Rosenberg’s (1989) self-esteem scale, a drug scale (composed of summing “yes” = 1, “no” = 0 responses to whether the girls had tried each of 14 different drugs), and self-harming behaviors (also dichotomous yes/no items, measuring suicide ideation, suicide attempts, hurting one’s self on purpose, and self-mutilation). Similar to the self-esteem and drug scales, the individual yes/no items of self-harming were summed to make a self-harm scale (ranging from 0 to 4). Rosenberg’s (1989) self-esteem scale consisted of 10 items and had a potential and actual range of 0 to 10 points. The youth received a point for reporting each of the following items:

feeling as though they are a person of worth; possessing a number of good qualities; feeling as though they are not a failure; doing things as good as others; having something to be proud of; feeling “okay” about themselves; feeling satisfied with themselves; not feeling as though they wish they could have more respect for themselves; not feeling useless; and thinking that they are good at things. Higher scores on the self-esteem, drug, and self-harming scales indicate a higher level of self-esteem, drug use, and self-harming behaviors, respectively. A more unusual outcome variable was whether the incarcerated girl reported having ever been pregnant.

Data Analysis

The data from the two self-report surveys of incarcerated women and girls are both quantitative in nature. The data analysis were conducted to examine the relative frequencies of the demographic characteristics of both samples (see Table 1) and the frequencies of FDI, SFDI, and BSI (see Table 2), with additional analysis to examine whether one victim-offender relationship is significantly more likely than another (see Figures 2 and 3). Next, correlational analyses were conducted to examine whether and if so how the victim-offender relationships (including the levels of abuse in the Data Set 1 sample) were significantly correlated with the outcome variables (see Table 4). In cases where the outcome variables were continuous measures (i.e., the drug scale, the self-esteem scale, the self-harming scale), only the correlational findings are reported in this thesis. For cases where the outcome measure was dichotomous (yes/no), chi-squares were conducted and these significant relationships are reported in Table 5, in order to examine the actual percentage breakdowns. Finally, for both Data Sets 1 and 2, I made a continuous variable, “Total FDI + SFDI + BSI,” by summing the FDI, SFDI, and BSI dichotomous variables (where yes = 1, no = 0 for each of these three ICA victim-offender relationships) to be used in the correlational and cross-sectional analyses as an

independent variable. This “Total” variable ranged from 0 to 3 for both the incarcerated women and girls (see Table 2, in both data sets there was one individual sexually abused by all three: father, stepfather, and brother).

Limitations

Although the two data sets used for this study offer an unprecedented examination of comparing FDI, SFDI, and BSI, they are not without limitations. For example, I am not allowing for additional victim-offender relationships, including additional ICA victimization relationships in the current analysis. Moreover, the two data sets used different surveys, so they are not completely comparable, however, each provides unique information. Another problem is that Data Set 1 had only one outcome variable, whether the woman identified as having a drug and/or alcohol problem on the self-report survey. I also do not have information on the ages at which the FDI, SFDI, and BSI started and how long they lasted for either data set. In Data Set 2, there are far more outcome measures available, but their types (seriousness) of the levels of the ICA were not collected (e.g., molesting, rape, etc.). Finally, both data sets were too small to do much in the way of multivariate analyses, and even the chi-square analyses were often fraught with one or two (usually one) cell size having an expected count of less than 5. Despite the limitations of the current study, it is the first study to compare BSI with FDI and SFDI among incarcerated individuals, and as noted in the literature review, the amount of research on BSI is rare even among non-incarcerated samples.

RESULTS

As a reminder Data Set 1 draws on self-report sexual abuse history surveys from 391 women incarcerated in one of three prisons in Ohio in 1996, and Data Set 2 draws on

anonymous self-report surveys collected from girls housed in delinquent institutions in Ohio in 1998 and includes 163 incarcerated girls. (The demographic characteristics of both samples are in Table 1 and were described previously in the methods section.)

Rates of FDI, SFDI, and BSI

Table 2 summarizes the frequencies of father (FDI), stepfather (SFDI), and brother (BSI) sexual abusers of institutionalized women and girls. (The women's self-reports were of these different relatives sexually abusing them while they were still minors.) This table distinguishes the total number of women/girls reporting FDI, SFDI, and BSI abusers (called "total" in the table), regardless of whether they had one or more of these abusers, or additional abusers (e.g., strangers, neighbors, and other family members). Table 2 also reports how many of the women and girls reported "only" a FDI, SFDI, or BSI, (called "single abuser") in the table, meaning that if a participant reported all three or any two of the FDI, SFDI, or BSI abusers, they were omitted from this frequency report. Finally, in Table 2 the cases multiple abusers (referred to as "multiple abusers") included only the respondents who reported two or more of the three categories (FDI, SFDI, and/or BSI). For the purposes of the study, the "total" abusers is the most useful rate, although the other rates offer additional information.

Perhaps most notable from the rates reported in Table 2 is the relatively high rates of FDI (7.9% of incarcerated women; 8.6% of incarcerated girls), SFDI (8.4% of incarcerated women; 11.7% of incarcerated girls), and BSI (11.8% of incarcerated women; 6.1% of incarcerated girls) among incarcerated women and girls. For example, in Russell's random sample of 930 women in San Francisco, 4.5 percent reported being sexually abused by a father figure (father, stepfather, or foster father) and 2.2 percent reported being sexually abused by a brother (see Figure 1). Another notable finding in Table 2 is that 5.1 percent ($n = 20$) of the incarcerated

women and 5.5 percent (n = 9) of the incarcerated girls had been abused by at least two of the three categories (brothers, fathers, or stepfathers). Table 2 also indicates that brothers are the most common abusers of the three victim-offender relationships (father, stepfather and brother) among incarcerated women, while stepfathers are the most common abusers of the three victim-offender relationships among incarcerated girls.

More specifically, comparing the incarcerated women with the incarcerated girls, Table 2 indicates that the incarcerated women (11.8%) were about twice as likely as the incarcerated girls (6.1%) to report having ever been sexually abused by a brother. Regarding women and girls who had “only one” of the three potential ICA abusers (father, stepfather or brother), again the women (8.2%) were about twice as likely as the girls (3.7%) to report this. It appears that the SFDI abusers are more likely for incarcerated girls (11.7%) than incarcerated women (8.4%), while the differences between FDI abusers were closer in rates. To examine whether these differences in the ICA rates were significantly different additional analyses were conducted (see Figures 2 and 3). From Figure 2, it is clear that among incarcerated women, they are significantly more likely to be sexually abused by brothers than they are by fathers or stepfathers. In Figure 3, among incarcerated girls, they are significantly more likely to be abused by stepfathers than by brothers, but the difference between being abused by fathers and stepfathers did not reach significance.

Levels (Seriousness) of FDI, SFDI, and BSI

As noted previously, Data Set 2 (on the incarcerated girls) did not collect any details, such as seriousness of types of abuse, for the girls’ abusers. Alternatively, Data Set 1 on the incarcerated women, included very detailed reports. Table 3 summarizes the reported sexual

violations and abuse levels by the participants in the incarcerated women population only. Level 1 abuse reported refers to nudity, disrobing, genital exposure, observing victim undress or shower, and kissing. Five percent of the women (21) reported Level 1 abuse perpetrated by the father, six percent (23) by both the stepfather, and the brother (24). Level 2 types of violation include “fondling” of the victim by the perpetrator, and the victim masturbating the offender. Under the Level 2 category, between 5 and 6 percent of the incarcerated women reported each of the three ICA examined in this study (father, stepfather, and brother). Level 3 included finger penetration of the anus and finger penetration of the vagina. Incarcerated women reported a prevalence rate of about 4 percent for all three victim-offender relationships (father, stepfather, brother). The Level 4 type of violation includes oral sex on victim’s genitals and oral sex on abuser’s genitals. The prevalence of these Level 4 (oral sexual) abuses ranged from 2.8 percent stepfathers, to 3.1 percent fathers, and 3.7 percent for brother abusers. Level 5, the highest level, includes the perpetrator’s penis in the victim’s anus and the perpetrator’s penis in the victim’s vagina. The prevalence of the Level 5 (penile penetration of the vagina or anus) abuses ranged from 4.1 percent of fathers, to 4.9 percent of stepfathers, and 6.8 percent of brothers. In the cumulative levels of abuse, 28 (7%) women reported a Level 1 thru 5 abuse perpetrated by the father, 29 (8%) by a stepfather, and 38 (10%) by a brother. Combining Level 4 and 5, the most severe types of violations, 18 (5%) women reported the father as the abuser, 20 (5%) reported a stepfather, and 30 (8%) reported a brother (see Table 3).

Regarding cumulative levels, that is reporting Levels 4 and/or 5, Levels 3 through 5, Levels 2 through 5, and Levels 1 through 5, the variations for rates of father reported abusers ranged from 4.7 to 7.2 percent, for stepfather abusers this ranged from 5.2 to 7.5 percent, and for brother abusers this ranged from 7.8 to 9.9 percent (see Table 3). Thus, even the lowest percent

for brother abusers was higher than any of the level percents for father or stepfather abusers. Additionally, for every level of category of abuse, the brothers were always the highest percentage, even if it was by a few tenths of a percentage point. Notably, the greatest gaps between brothers as abusers compared to fathers and stepfathers is at the most serious and cumulative levels.

Significant Bi-variate Relationships: Victim-Offender Relationship by Outcome Variables

To examine how the victim offender-relationship was related to the outcome variables, I started by conducting correlational analyses, and followed these with cross-tabulation analyses. In addition to whether the victim-offender relationship was FDI, SFDI, or BSI, this analysis included the level of the abuse as described for Table 3 analyses and reported in the last section. Table 4 summarizes the significant correlations between the victim-offender relationship and outcome variables, and Table 5 reports the significant cross-tabulation analyses.

Notably, for the incarcerated women, the only victim-offender relationship that was significantly related to the outcome variable (whether the woman had a drug and/or alcohol problem) was whether the woman reported being sexually abused by a brother. (Father and Stepfather abusers were never significantly related to the outcome variables.) More specifically, 93 percent of incarcerated women sexually abused by a brother reported an alcohol/drug problem, compared to 76 percent not abused by a brother who reported a drug/alcohol problem. However, all (100.0%, n = 15) of the women reporting Level 5 sexual abuse perpetrated by a brother reported having a drug/alcohol problem. Certainly among these incarcerated women not only were brother abusers more likely than father and stepfather abusers, but they were also more likely to abuse at the more and most serious levels, and the BSI was the victim-offender relationship (compared to FDI and SFDI) to be related to a drug and/or alcohol problem.

I now turn to the bivariate analyses of incarcerated girls, for which there were no measures of the *levels* (seriousness) of the sexual abuses, but where there were far more measures of outcome variables. Similar to the outcome variable for the women, a drug/alcohol problem, “ever addicted” to drugs or alcohol, and the drug scale were found to be significantly related to some of the ICA. More specifically, girls who were victims of FDI were more likely (92%) to report having ever been addicted to drugs/alcohol, than girls who were not sexually abused by their fathers (62%). Girls who were victims of BSI reported using significantly more drugs than girls who were not sexually abused by their brothers. Finally, the “Total” variable summing FDI, SFDI and BSI, was positively correlated to the drug scale, indicating that the more abusers, the more drugs the girls reported using.

Self-esteem and self-harming behaviors were also related to some of the victim-offender variables for girls, mostly the “Total” variable summing the abusers. Girls who were victims of SFDI reported worse self-esteem than girls not sexually abused by their stepfathers. The higher the “total” number of FDI + SFDI + BSI, the worse self-esteem, the more drugs used, the more likely to think about suicide, the more likely to attempt suicide, the more likely to harm one’s self on purpose, and the higher the score of totaling the self-harming behaviors (the self-harm scale). More specifically, The final outcome variable was to measure whether the girl had ever been pregnant. This outcome variable was only related to whether the girl was a victim of BSI. Girls who reported BSI victimization were twice as likely (67%) to report having been pregnant than girls who were not sexually abused by their brothers (34%).

DISCUSSION AND CONCLUSIONS

This study sought to add to the research conducted on ICA with a focused look into incarcerated women and girls' incest victimization histories when comparing the victim-offender relationship between the father, stepfather, and brother. Due to the dearth of research conducted on brother- perpetrated ICA, and because the sibling bond has been argued to be one of most impactful relationships in a child's lifetime development (Hardy 2001; Thompson 2009), it is important to raise awareness of the frequency and severity of sibling sexual abuse. Often "[sibling abuse] symptoms go unrecognized, and [their] devastating effects continue to be ignored" (Wiehe 1997: 3). Significantly the sample used for these findings come from incarcerated women and girls, a group who has extraordinarily high sexual abuse victimization histories, but for which brother-perpetrated sexual abuse has not been addressed. Thus, the high percentages of this sample having experienced sexual abuse by a father, stepfather, and/or brother indicates that ICA could be a pathway to incarceration, as other research in this area suggests (Belknap and Holsinger 2006; Browne et al., 1999; McDaniels-Wilson and Belknap 2008; Raj et al. 2008).

In addition to documenting the high FDI, SFDI, and BSI rates among these incarcerated girls and women, this study supports the sparse research on BSI, indicating that it is possibly more common and occurs at more severe levels of sexual abuse (e.g., rape) than FDI or SFDI. The current study found that particularly for the incarcerated women sample, brothers were not only the most frequent of the three types of abusers (father, stepfather, and brother), but that they were significantly more serious abusers. Given that this was not as apparent in the sample of incarcerated girls, one could speculate that BSI is an even greater risk factor for offending than

FDI and SFDI. Perhaps this is because brothers are more likely to abuse at the most serious levels.

The bivariate analyses also indicated the significance of BSI over FDI and SFDI in terms of negative outcomes among incarcerated girls and women. Indeed, whether an incarcerated woman reported BSI and the levels of BSI were the only variables related to the outcome variable for this sample: alcohol/drug problems. In every case, the presence or higher levels of BSI were related to more drug/alcohol abuse.

Among the sample of incarcerated girls, BSI was related to using more types of drugs and to ever having been pregnant. The bivariate analysis of the incarcerated girls also found that the number of (father, stepfather, and brother) abusers was positively correlated with the number of drugs a girl reported using and the number of self-harming behaviors she reported. The total number of abusers was also related to three of the individual self-harming behaviors (suicide ideation, suicide attempt, and purposely harming self). It is not surprising that the more abusers, that the girls would use more drugs, have worse self-esteem, and harm themselves more. The number of abusers, also as expected, was negatively correlated with the girls' self-esteem. Notably, SFDI was the only victim-offender relationship that was solely related to the self-esteem scale, indicating that SFDI harms incarcerated girls' self-esteem more than BSI or FDI. Perhaps girls feel worse if their mothers find out about the SFDI, feeling as if they are competing with them with their "new" relationship.

It is useful to examine the BSI findings in the current study in terms of the extant literature on ICA. If force can be compared to severity, the current results are in alignment with Russell's (1986) finding that more force is used in sibling incest than in FDI, and the results from the Cyr et al. (2002) study indicating that brothers were twice as likely to perpetrate

intercourse than fathers and stepfathers, and that brothers use force more frequently than fathers or stepfathers. The current study's findings could be due to the brother's easier access to the sister during non-parental supervision, or because the brother has less concern about pregnancy than the father or stepfather, or possibly the father and stepfather abuser more clearly recognize the seriousness of anal or vaginal intercourse (level 5) as a sexual violation. Perhaps at the time of abuse, the girls fought back in a different way when a father or stepfather made the attempt. More research is necessary to understand why sexual abuse perpetrated by the brother is more severe than that perpetrated by the father or the stepfather.

In sum, the current study has implications for ICA among female offenders, but likely also for girls in the community (non-offenders). Hopefully as the awareness of BSI increases, studies such as this will facilitate the development of more finely tuned prevention programs as well as more effective treatment plans for survivors of brother-perpetrated incest for girls outside and within correctional facilities. Future research should continue assessing BSI along with FDI and SFDI. It also seems, given the current findings, that it would be important to include sexual abuse of girls by their stepbrothers as well as stepfathers. Responding to youth sexually abused by fathers, stepfathers, and it would seem, especially brothers, is vital in girls' recovery and decreasing their likelihood of offending. However, these findings also point to the need for having a variety of programs for incarcerated female offenders in sexual abuse recovery, and to address brothers' sexual abuse of sisters.

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APPENDIX

Figure 1: Results from Studies Assessing Sibling Incest

Study	Sample	Rate by Victim-Offender-Relationship & Age		Other Findings
			% ^a	
Finkelhor (1980)	Survey of 796 female and male College students in 6 New England Colleges and Universities	Just categorizes as sibling incest, with no distinctions of victim-offender genders and little detail on use of coercion or force. Age of sibling incest experiences ranged from 3 to over 19 years old, with median = 10.2. Sexual experience (not necessarily negative) involving siblings Total (Reported by Females and Males) Reported by Females Reported by Males	13 15 10	<ul style="list-style-type: none"> • 43% of sibling incest cases occurred when the respondent was under the age of 8 years old. • 25% of these encounters were considered exploitative, because force was used or threatened, but no distinction gender distinctions are made regarding either perpetration or victimization.
Russell (1986)	Face-to-face interviews with 930 women age 18 and older in San Francisco, CA	Any ICA before age 18 Any ICA before age 14 Brother-perpetrated before age 18 Father-figure-perpetrated (e.g., step, foster) before age 18	16.3 11.6 2.2 4.5	<ul style="list-style-type: none"> • Victims of brothers report more fear than victims of fathers. • More force used in sibling incest than in FDI • 48% of sisters abused by brother report being very or extremely upset by the abuse. • 56% report some or great long term effects. • 47% of victims of BSI never married • 50% of victims of BSI report having a husband or ex-husband be physically violent toward them, versus 18% of women who have never been incestuously abused.
Adler & Schutz (1995)	Retrospective chart reviews of intake material of 12 male sibling incest perpetrators of sister victims in an outpatient psychiatric clinic. ^b (Location not disclosed)	At onset: Victims aged 5-13, avg. = 7; Brothers aged 11-14, avg. = 12 2-5 incidents 6-15 incidents 16+ incidents Fondling-dressed and undressed Fellatio Cunnilingus Penile-vaginal penetration Intercourse to ejaculation Anal penetration	25 17 58 100 58 83 33 25 8	<ul style="list-style-type: none"> • 83% of offenders were oldest child in the family • Duration of abuse 2-72 months, avg. = 22 months. • 75% of victims report use of verbal threats to maintain silence • 92% of victims report no actual violence in abuse

Figure 1: Results from Studies Assessing Incestuous Child Abuse including Sibling Incest (cont'd.)

Study	Sample	Rate by Victim-Offender-Relationship (V-O-R) & Age		Other Findings
			%	
Rudd & Herzberger (1999)	For BSI statistics- Surveys distributed to 62 women attending support groups for incest survivors. BSI and FDI sample from three different assault center locations in a northeastern state.	14 of 62 sexually abused by brother Threat of force: Brother Father Actual force: Brother Father Pain or injury: Brother Father Bribes: Brother Father	23 45 64 64 53 45 60 50 50	<ul style="list-style-type: none"> 15 subjects of the group-who were abused by their fathers-were chosen to compare to the 14 subjects abused by brothers. Sibling abused women had more siblings, more brothers, and more older brothers. Avg. duration: BSI =7.9 years, FDI = 14.7 years Long term effects of abuse evidenced to be equally if not more serious for both BSI and FDI, even though the BSI duration is approximately half as long. <ul style="list-style-type: none"> Victims of BSI and FDI had equal levels of depression. Compared to victims of FDI, victims of BSI had higher levels of drug/alcohol problems, sexual promiscuity, compulsive spending, flashbacks, and lack of memory (but the N is small so it is unlikely these are significant differences).
Cyr et al. (2002)	72 girls referred by Child Protective Services between 1996-1999 in Quebec, Canada. Subjects selected from a larger study based on V-O-R to form 3 equal groups of 24 for FDI, SFDI, and BSI.	Girls (victims) ranged from 5-16 years old, avg. = 11.3. Force: Brother Father Stepfather Physical Violence: Brother Father Stepfather Fondled & touched genitals Brother Father Stepfather Intercourse Brother Father Stepfather	30.0 13.6 13.0 8.7 13.6 13.0 87.5 34.8 27.3 70.8 34.8 27.3	<ul style="list-style-type: none"> Average onset of abuse for victim was 8 years old and did not differ between groups (i.e., BSI, FDI, and SFDI). Duration: BSI 28.5 months/FDI 28.9 months/SFDI 19.4 months Brothers used force more frequently than fathers, or stepfathers Brothers were 2x as likely to perpetrate intercourse Victims who were abused by brother had higher percentages of anxiety, depression, PTSD, and dissociation, than when abused by either father or stepfather

Figure 1: Results from Studies Assessing Incestuous Child Abuse including Sibling Incest (cont'd.)

Study	Sample	Rate by Victim-Offender-Relationship & Age		Other Findings
			%	
Carlson et al. (2006)	Retrospective interview/survey of 34 female sibling-incest victims and 7 male sibling-incest victims in NY ^c	Brother as perpetrator	88.2	<ul style="list-style-type: none"> • 43.9% report threats^c • 22% report force^c • 94.1% report fondling^c • 41.5% report vaginal intercourse^c • 44.1% report oral sex^c • 14.7% report ritual abuse, or physical or sexual torture^c • 22.5% lasted 10 years or more^c
		Sister as perpetrator	11.8	
		Father (In addition to above sibling abuse)	19.0	
		Other Sibling (In addition to above sibling abuse)	4.8	

^a Percentages are reported as up to one decimal point except in the cases that the originals only reported percentages without any decimal places.

^b Of these 12 offenders, 9 were biologically related to their parents and to each other, and 3 were adopted into the families in which they lived, with one set being biological siblings who were adopted into the same home.

^c The findings in this study were not always clear regarding the gender (sister or brother) of the perpetrator *or* the victim. The findings reported under “Rate by Victim-Offender Relationship & Age” apply only to female (sister) victims for the first two categories, but for the second two categories under this heading, brother and sister victims were combined, and brother and sister abusers were combined. That is, for the last two categories, the percentages do not distinguish sisters from brothers who were abused by siblings, nor do they distinguish whether the abuser was a sister or brother. In the final column, “Other Findings,” the percentages reported are for sister (girl) victims, however, they do not distinguish whether the perpetrator was a sister or brother, we only know that 88.2% of the cases were brother-perpetrated in this column.

Figure 2: A Statistical and Visual Comparison of the Likelihood of Incarcerated Women to Report a Father, Stepfather, or Brother Sexual Abuser (N = 391)



	<u>n</u>	<u>total</u>	<u>p</u>	<u>s.e.</u>	<u>error</u>	<u>min</u>	<u>max</u>
Father	31	391	0.079	0.013664	0.026781	0.053	0.107
Stepfather	33	391	0.084	0.014058	0.027554	0.057	0.116

Figure 3: A Statistical and Visual Comparison of the Likelihood of Incarcerated Girls to Report a Father, Stepfather, or Brother Sexual Abuser (N = 163)



	<u>n</u>	<u>total</u>	<u>p</u>	<u>s.e.</u>	<u>error</u>	<u>min</u>	<u>max</u>
Father	14	163	0.086	0.021947	0.043016	0.043	0.135
Stepfather	19	163	0.117	0.025135	0.049264	0.067	0.153
Brother	10	163	0.061	0.018796	0.03684	0.025	0.061

**Table 1: Demographic Characteristics of the Two Samples:
Incarcerated Women and Incarcerated Girls**

N	%	n
Incarcerated Women		
Age (X = 35.0)		375
18-29	30.4	114
30-39	44.8	168
40-49	20.5	77
50-59	3.7	14
60-70	0.5	2
Race/Ethnicity		377
White	44.6	168
African American	53.3	201
Other ^a	2.1	8
Education (X = 10.9)		361
11 grade or less	57.8	208
High School graduate	27.7	100
Partial college	14.7	53
Children (X = 2.39)		371
No children	14.6	54
1-4	74.1	275
More than 5	11.3	42
Incarcerated Girls		
Age (X = 15.9)		163
12-13	6.1	10
14-15	26.4	43
16-17	55.2	90
18+	12.3	20
Race/Ethnicity		163
White	47.9	78
African American	36.2	59
Other ^b	16.0	26
Education ^c (X = 8.75)		161
1-6	3.7	6
7-9	69.6	112
10-12	26.7	43
Children ^b (X = 0.17)		160
No children	86.3	138
1-3	13.8	22

^a Of the 8 women classified as “other,” 1.6% (n = 6) were reported as “bi-racial,” 0.5% (n = 2) as Native American. The race/ethnicity data came from the prison records.

^b Of the 26 girls classified as “other,” 9.8 % (n = 16) self-identified as “bi-racial,” 4.3% (n = 7) as “other,” 1.2% (n = 2) as Native American, and 0.6% (n = 1) as Latina/Hispanic.

^c Measured as grade completed.

^d Twenty-two of 160 girls reported having children; only 19 reported how many.

Table 2: Frequencies of Father, Stepfather, and Brother Sexual Abusers of Incarcerated Women and Girls

<u>Victim-Offender Relationship^a</u>	<u>Incarcerated Women</u> (N = 391)		<u>Incarcerated Girls</u> (N = 163)	
	%	(n)	%	(n)
Total^a				
Father	7.9	(31)	8.6	(14)
Stepfather	8.4	(33)	11.7	(19)
Brother	11.8	(46)	6.1	(10)
Single Abuser^b				
Father	4.6	(18)	6.1	(10)
Stepfather	6.4	(25)	8.6	(14)
Brother	8.2	(32)	3.7	(6)
Multiple Abusers^c				
Father & Brother	2.6	(10)	1.2	(2)
Father & Stepfather	1.0	(4)	1.8	(3)
Stepfather & Brother	1.3	(5)	1.8	(3)
Father, Stepfather & Brother	0.3	(1)	0.6	(1)

^a“Total” refers to whether a participant ever reported that victim-offender relationship (father, stepfather, or brother) regardless of whether she reported more than 1 of these as sexual abusers. For example, 7.9% of the women and 8.6% of the girls reported being sexual abuses by a father, but some of those same women/girls were also sexually abused by a brother or stepfather, and 1 woman and no girls were sexually abused by all 3 victim-offender relationships (father, stepfather, and brother).

^bSingle abusers refers to that for “father” there was a father reported as a sexual abuser and no stepfather or brother reported as a sexual abuser. For stepfather, “only” stepfather and no father or brother sexual abuser was reported, and for brother “only” a brother sexual abuser and no father or stepfather abuser was reported. The women and girls may have also reported additional victim-offender relationships such as additional family members, strangers, teachers, and so on, not included in the present analysis.

^cMultiple abusers include every combination of two or all three of the father, stepfather and brother sexual abusers.

Table 3: Sexual Violation and Abuse Levels Perpetrated by Fathers, Stepfathers, and Brothers among Incarcerated Women

Type of Violation ^a	<u>Abuser's Relationship to Victim</u>					
	<u>Father</u>		<u>Stepfather</u>		<u>Brother</u>	
	(N = 387)		(N = 388)		(N = 383)	
	<u>%</u>	<u>(n)</u>	<u>%</u>	<u>(n)</u>	<u>%</u>	<u>(n)</u>
Level 1	5.4	(21)	5.9	(23)	6.3	(24)
Nudity	4.1	(16)	3.6	(14)	3.9	(15)
Disrobing	3.1	(12)	2.3	(9)	2.3	(9)
Genital exposure	3.9	(15)	4.6	(18)	4.4	(17)
Observing undress, shower	3.9	(15)	3.4	(13)	3.1	(12)
Kissing	3.9	(15)	3.9	(15)	4.4	(17)
Level 2	5.7	(22)	5.4	(21)	5.7	(22)
Fondling victim	5.7	(22)	4.9	(19)	5.7	(22)
Victim masturbate offender	3.1	(12)	3.1	(12)	2.3	(9)
Level 3	4.1	(16)	3.9	(15)	4.4	(17)
Finger penetration of anus	2.1	(8)	1.3	(5)	1.8	(7)
Finger penetration of vagina	3.6	(14)	3.9	(15)	4.4	(17)
Level 4	3.1	(12)	2.8	(11)	3.7	(14)
Oral sex on victim's genitals	3.1	(12)	2.1	(8)	2.6	(10)
Oral sex on abuser's genitals	2.1	(8)	2.6	(10)	2.3	(9)
Level 5	4.1	(16)	4.9	(19)	6.8	(26)
Penis in anus	2.6	(10)	1.5	(6)	1.6	(6)
Penis in vagina	3.9	(15)	4.9	(19)	6.8	(26)
Cumulative Levels						
Reported Level 4 &/or 5	4.7	(18)	5.2	(20)	7.8	(30)
Reported any Level 3 thru 5	4.9	(19)	5.7	(22)	8.4	(32)
Reported any Level 2 thru 5	6.5	(25)	7.2	(28)	9.4	(36)
Reported any Level 1 thru 5 ^c	7.2	(28)	7.5	(29)	9.9	(38)

^a The N's vary by victim-offender relationship because for some cases the participant circled a particular abuser (i.e., father, stepfather, and/or brother), but did not identify the types of abuse or abuses that individual perpetrated against her. Thus, victims were least likely to identify the type of abuse(s) for brother perpetrators.

Table 4: Significant Correlations between Father-, Stepfather-, and Brother-Perpetrated Sexual Abuse and Outcome Variables among Incarcerated Women and Girls

<u>Victim-Offender Relationship</u>	<u>Outcome Variable</u>	<u>N</u>	<u>r</u>
Incarcerated Women			
<u>Brother-Sister Incest (BSI)^a</u>			
Any BSI	Drug &/or Alcohol Prob.	228	.134*
Any Levels 1-5 BSI	Drug &/or Alcohol Prob.	222	.140*
Any Levels 3-5 BSI	Drug &/or Alcohol Prob.	222	.158*
Any Level 4 &/or 5 BSI	Drug &/or Alcohol Prob.	222	.153*
Level 5 BSI	Drug &/or Alcohol Prob.	222	.143*
Incarcerated Girls			
<u>Father-Daughter Incest (FDI)</u>			
	Ever-addicted	156	.174*
<u>Stepfather-Daughter Incest (SFDI)</u>			
	Self-Esteem Scale ^b	163	-.179*
<u>Brother-Sister Incest (BSI)</u>			
	Drug Scale ^c	154	.242**
	Ever Pregnant	158	.160*
<u>Total FDI + SFDI + BSI^d</u>			
	Self-Esteem Scale	163	-.183*
	Drug Scale ^c	154	.265***
	Suicide Ideation ^e	158	.157*
	Suicide Attempt ^e	160	.188*
	Hurt Self on Purpose ^e	159	.160*
	Self-Harm Scale ^e	157	.202*

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$

^aThe only ICA variables related to the incarcerated women outcome variable “drug or alcohol problem” were with the brother perpetrators. (Father and stepfather perpetrators were never related to the drug/alcohol problem.) Refer back to Table 3 for explanations of the levels in the abuse for the BSI of the incarcerated women. Any Levels 2-5 BSI had a significance level of $p = .054$.

^b Self-esteem scale comes from Rosenberg (1989) and ranged from 0 to 10. A higher number reflects a higher self-esteem.

^c Drug scale was computed by summing the number of drug types they had used (e.g., marijuana, LSD, heroin, crack, PCP) and ranged from 0 to 14. A higher number reflects greater drug use.

^dTotal FDI + SFDI + BSI is a variable that summed FDI, SFDI, and BSI, all measured as 0 = no and 1 = yes, thus the responses ranged from 0 to 3.

^e Four dichotomous (yes/no) items were used to measure “self harm”: suicide ideation, suicide attempt, and hurt self on purpose, and mutilated self. “Mutilated self” was the only self harm measure uncorrelated. “Self-harm” is a scale summing suicide ideation, suicide attempt, hurt self on purpose and mutilate self, and ranged from 0 to 4. A higher number indicates more self-harming behaviors and thoughts.

Table 5: Cross-Tabulation Results of Victim-Offender Relationships Significantly Related to the Outcome Variable

<u>Victim-Offender Relationship^a</u>		Incarcerated Women:					
		<u>Reported a Drug and/or Alcohol Problem</u>					
		<u>Yes</u>		<u>No</u>			
	<u>N</u>	<u>%</u>	<u>(n)</u>	<u>%</u>	<u>(n)</u>	<u>χ²</u>	
<u>Any Brother Sister Incest (BSI)</u>	228						
Yes		92.9%	(26)	7.1%	(2)	4.08*	
No		76.0	(152)	24.0	(48)		
<u>Brother Level 5</u>	222						
Yes		100.0%	(15)	0.0%	(0)	4.56*	
No		76.3	(158)	23.7	(49)		
<u>Brother Level 4 &/or 5</u>	222						
Yes		100.0%	(17)	0.0%	(0)	5.21*	
No		76.1	(156)	23.9	(49)		
<u>Brother Level 3, 4 &/or 5^b</u>	222						
Yes		100.0%	(18)	0.0%	(0)	5.55*	
No		76.0	(155)	24.0	(49)		
		Incarcerated Girls:					
		<u>Ever Addicted to Drugs</u>					
<u>Any Father-Daughter Incest (FDI)</u>	156					4.72*	
Yes		92.3%	(12)	7.7%	(1)		
No		62.2	(89)	37.8	(54)		
		<u>Ever Pregnant</u>					
<u>Any Brother-Sister Incest (BSI)</u>	158					4.07*	
Yes		66.7%	(6)	33.3%	(3)		
No		33.6%	(50)	66.4%	(99)		

^a These findings might be interpreted with caution as, with the exception of the first cross-tabulation (BSI x Drug/Alcohol Problem), the remaining 6 cross-tabulation in this table had 1 cell with an expected frequency of less than 5.

^b Similar to the correlational analyses, “Any Levels 2-5” for BSI had a significance level of p = .054.