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Father–Daughter Incest: Data
from an Anonymous Computerized Survey

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Abstract:

Retrospective data were entered anonymously by 1,521 adult women using computer-assisted self-interview. Nineteen were classified as victims of father–daughter incest, and 241 were classified as victims of sexual abuse by an adult other than their father before reaching 18 years of age. The remaining 1,261 served as controls. Incest victims were more likely than controls to endorse feeling damaged, psychologically injured, estranged from one or both parents, and shamed by others when they tried to open up about their experience. They had been eroticized early on by the incest experience, and it interfered with their adult sexuality. Incest victims experienced coitus earlier than controls and after reaching age 18 had more sex partners and were more likely to have casual sex outside their primary relationship and engage in sex for money than controls. They also had worse scores on scales measuring depression, sexual satisfaction, and communication about sex than controls.

Data from two population-based studies (Russell, 1986; Sariola & Uutela, 1996) provide the best estimates of the true incidence of father–daughter incest (FDI). Russell (1986) reported a 4.5% incidence of FDI based on the results of face-to-face interviews of a random sample of 930 women in San Francisco, but a 50% refusal rate raises concern that self-selection may have been operating during participate recruitment. Sariola and Uutela (1996) found a 0.5% incidence of FDI in a random sample consisting of 3,757 female Finnish ninth grade students, with 0.3% being stepfather incest and 0.2% being biological father incest. The relative risk of stepfather incest was 15 times higher than that of biological-father incest (Sariola & Uutela, 1996). However, asking adolescent children living with the perpetrator to anonymously report their father or stepfather using a paper instrument in a school environment where students were used to expecting active communication between the school and their parents on other matters would be expected to have led to serious underreporting. Limited research on FDI suggests that it has a long-term impact on later adult functioning (de Young, 1982; Herman, 1981; Meiselman, 1979; Nelson, 1981; Westerlund, 1992). However, the taboo nature of the topic has resulted in limited reporting and few studies. Despite a computerized search in March 2011 of the Medline, PsychINFO, and PsychARTICLES databases using Academic Search Premier for the term “incest” in the title, the abstract, or the subject, the papers related to FDI cited in this paper were the only ones that provided substantive background for our present study. In more recent articles, cases of FDI were lumped together with other types of child sexual abuse (CSA) or the number of cases was extremely small, making it difficult to draw conclusions about the prevalence of FDI and its effects on victims. The present study seeks to address this dearth by examining the prevalence of FDI in a large community sample and comparing the effects of FDI on adult global and sexual functioning to CSA victims and controls.

PREDICTORS OF FDI AND EFFECTS OF FDI ON VICTIMS

Paveza's (1988) epidemiologic case-control study based on 34 cases and 68 control families identified four risk factors associated with father-daughter sexual abuse: low mother-daughter closeness, low marital satisfaction, violence on the part of the father against the mother, and low income. Yates's (1982) court-ordered evaluations of more than 40 incest victims while they were still children showed that they had been eroticized by the incest experience—that many were not only victims but participants. Many of the children actively sought sexual experiences in foster families and from classmates after removal from their nuclear families, and their sexual behaviors were difficult to suppress even in the new environments. Epidemiological searches for predictors of *child sexual behavior problems* indicated that a number of other antecedent events, attitudes, and customs within the nuclear families of children with sexual behavior problems could serve as predictors for problematic sexual behaviors in children (Friedrich, 2007; see Elkovitch, Lutzman, Hansen, & Flood, 2009 for review). For example, there are indications in some cases that the behaviors of a victim's mother in her relationship with the perpetrator-father could have contributed to the development and duration of FDI (e.g., avoiding sex, emotional unavailability, and maternal role abdication; de Young, 1982; Meiselman, 1979; Lev-Wiesel, 2006).

Nelson (1981) recounted from her own experience as a young victim of incest that she initially experienced the sexual behaviors as a pleasant and enjoyable part of her relationship with her father. She revealed the behavior to her mother only after becoming concerned that engaging in the behavior was bad based on playground talk. Even without revealing the behavior to others, continuing an incestuous relationship over time (often months or years) can lead to harm. The victim becomes increasingly aware that the behavior contradicts the laws, mores, and values of broader society (Herman, 1981; Meiselman, 1990), and it has profound effects on the developing psychological structure of young women through the impact of cognitive dissonance and society's shaming messages and warnings of harm (de Young, 1982; Festinger, 1957; Herman, 1981; Meiselman, 1979, 1990; Russell, 1986; Westerlund, 1992; Yates, 1982).

Victims of incest often blame themselves for allowing the incest to occur. They often feel guilty for allowing themselves to become sexually aroused, for having sought sexual contact with the perpetrator on some occasions, or for consequences faced by the perpetrator (de Young, 1982; Herman, 1981; Meiselman, 1979, 1990; Russell, 1986; Westerlund, 1992). Incest has been shown to impact the victim's adult relationships with her father, mother, sexual partner, spouse, and children and to affect the victim's sexual orientation, and it may produce problems with intimacy, sexual response, and sexual satisfaction (Herman, 1981; Meiselman, 1979, 1990; Westerlund, 1992). It can also result in promiscuity, prostitution, or celibacy and in problems in providing appropriate care to children, including breastfeeding (de Young, 1982; Herman, 1981; Meiselman, 1979, 1990; Russell, 1986; Westerlund, 1992). It is not unusual for a victim of incest to escape from the family by running away or entering into an early marriage only to be revictimized by other adult males (Courtois, 1988; de Young, 1982; Herman, 1981; Meiselman, 1979, 1990; Russell, 1986; Westerlund, 1992) or even a male therapist (Courtois, 1988; Westerlund, 1992). However, in some cases there appears to have been no adverse effect on female victims of incest (Meiselman, 1979; Nelson, 1981). A number of approaches to therapeutic treatment of incest have been developed. These include the victim advocacy model (e.g., Courtois, 1988), a family systems approach (e.g., Maddock & Larson, 1995), reintegration therapy (e.g., Meiselman, 1990), and a cognitive-behavioral approach (e.g., Westerlund, 1992).

A major problem in research on effects (or predictors) of incest has been identifying appropriate groups to serve as controls. Meiselman (1979) and Herman (1981) used a random selection of other patients seen at the same facility. Many other studies on incest used no controls at all (Meiselman, 1979). Comparisons between FDI and CSA by an adult male other than the father (CSA-O) would be an important way of identifying unique aspects of FDI trauma. CSA has also been shown to increase the likelihood that victims will subsequently manifest one or more adverse outcomes (for reviews, see Maniglio, 2010; van Roode, Dickson, Herbison, & Paul, 2009).

HYPOTHESES

The present study analyzed data from victims of FDI and two comparison groups: (a) victims of CSA-O and (b) controls who were not victims of either FDI or CSA-O. The items used for the present study were included as part of a larger anonymous computerized “cradle to the grave” study of human sexuality. Our hypotheses were as follows: (a) CSA by adult male perpetrators (both FDI and CSA-O) has global adverse effects on female victims, (b) the global effects of FDI are more severe than those of CSA-O, (c) FDI starts earlier than CSA-O, (d) FDI often is the first sexual experience for the daughter, (e) CSA by adult male perpetrators has a deleterious impact on adult women’s sexual adjustment with her adult partners, and (f) FDI has a more deleterious impact on adult women’s sexual adjustment within her sexual relationships with adult partners than CSA-O.

METHOD

Participants

The number of female participants who completed the interview was 1,521. The median age was 22 years ($M = 25.6$, $SD = 10.4$, range: 18–78 years). Those in the FDI group were significantly older than those in the other two groups (Table 1). Subtraction of their age at the time of study participation from the year that they participated in the study showed that the birth year of those in the FDI group (median year: 1976) was significantly earlier than the birth year of the other two groups (median year: 1984; see Table 1). A similar result was reported by Finkelhor (1980), who speculated that more mature women had greater candor in reporting their experiences with siblings, making a change in incidence over time a less believable explanation for our data. The education level of the participants was as follows: 3.3% high school only, 68.1% some college, 20.4% bachelor’s degree, 6.3% master’s degree, and 1.8% doctoral degrees; there was no significant difference in education between the three groups.

TABLE 1 Age at Study Participation and Scores on Five Psychological Scales

	Controls (<i>n</i> = 1,261) <i>mean</i> ± <i>SD</i>	CSA-O (<i>n</i> = 241) <i>mean</i> ± <i>SD</i>	FDI (<i>n</i> = 19) <i>mean</i> ± <i>SD</i>
Age of participant at study participation	25.6 ± 10.3	25.8 ± 10.1	34.6 ± 12.9a***, b**
Birth year of participant	1980.7 ± 10.9	1980.3 ± 10.5	1971.2 ± 14.1a***, b**
CES-D depression scale	12.9 ± 9.8	14.2 ± 9.7	18.5 ± 11.3a*
Intimacy-1 scale	50.1 ± 15.1	47.3 ± 15.3a	46.9 ± 13.6
Intimacy-2 scale	5.3 ± 1.6	5.1 ± 1.8	4.3 ± 1.6a*
Conflicts scale	1.7 ± 1.8	2.3 ± 2.0a***	2.6 ± 2.1
Sexual satisfaction scale	82.5 ± 19.5	82.5 ± 19.9	68.0 ± 21.4a**, b**

Note: a = comparison to Control group, b = comparison to CSA group.

p* < .05, *p* < .01, ****p* < .001, using Sheffe's correction for multiple post-hoc comparisons.

Measures

Sexual Behavior

The CASI program used for the present study, S-SAPE1 (SAPE, Charleston, West Virginia), has been described and validated elsewhere (see Haning et al. [2007] for a full description of the S-SAPE1 sexual behavior screen used to obtain detailed quantitative data about a variety of sexual behaviors and validation of the following five scales as administered by the S-SAPE1 CASI program).

Items related to incest were presented interspersed among similar items not related to incest. Variables describing behaviors that constituted CSA by an adult male were constructed by the computer program to ensure that they were worded similarly to those previously presented that described the same behaviors with male partners (a) whose age was within 4 years of the participant's and (b) whose age was more than 4 years older than the participant's but under age 18. See the appendix for items used in the present research.

Depression

The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was used to assess depression. The measure consists of 20 items, measured on a Likert scale ranging from 0 (rarely or none of the time: less than 1 day) to 5 (most or all of the time: 5–7 days). Internal consistency of the CES-D in the present sample was Cronbach's $\alpha = .911$.

Intimacy

The Intimacy Scale (Walker & Thompson, 1983), hereafter referred to as the Intimacy-1 scale, was used to assess intimacy. The measure consists of 17 items, measured on a Likert scale ranging from 0 (never) to 4 (always). Internal consistency of the Intimacy-1 scale in the present sample was Cronbach's $\alpha = .967$.

Intimacy as expressed in communication about sexual issues was assessed using the Sexual Partner Intimacy Scale (Haning et al., 2007), hereafter referred to as the Intimacy-2 scale. The measure consists of nine items, measured dichotomously. Internal consistency of the Intimacy-2 scale in the present sample was KR-20 $\alpha = .459$.

Sexual Satisfaction

The Sexual Relationship Index scale (Haning et al., 2007), hereafter referred to as the sexual satisfaction scale, was used to assess sexual satisfaction. The measure consists of 27 items, measured on a Likert scale ranging from 0 (less than 10% of the time) to 4 (more than 90% of the time). Internal consistency of the sexual satisfaction scale in the present sample was Cronbach's $\alpha = .928$.

Conflict

The Conflict Scale (Haning et al., 2007) was used to assess conflict between sexual partners. The measure consists of nine items, measured dichotomously. Internal consistency of the conflict scale in the present sample was KR-20 $\alpha = .695$). The sum of the individual item scores was used as the composite score for each of the five measures. Construct validity of the measures was demonstrated by the statistically significant correlations among the scales, which were consistent with theory (Haning et al., 2007; see Table 2).

Procedure

The present study was part of a larger study titled "Effects of Recalled Family Attitudes and Childhood Sexual Experiences on Adult Sexual Attitudes and Adjustment" approved by the institutional review boards at Marshall University, Charleston Area Medical Center/West Virginia University, West Virginia University, West Virginia State University, and Concord University. Participants were recruited from three midsized mid-Atlantic college campuses as well as university faculty and staff and individuals from the general population in the same locales using announcements in public meetings, gay organizations, gay pride events, and snowball recruiting. No reference to incest was made during promotion of the study. Informed consent was obtained by the investigators using approved consent forms. The survey was administered using S-SAPE1 in university computer laboratories with up to 45 computers/room and sufficient space between participants so that others were not in a position to see their computer screens. Anonymity was protected by electronic randomized filing of the encrypted results in a hidden random access file filled with fake data as well as simultaneous filing of

TABLE 2 Pearson Correlations¹ of Scores on the Five Scales in the 1,521 Participants

	(1)	(2)	(3)	(4)	(5)
(1) Sexual Satisfaction	–				
(2) Intimacy-1	.446	–			
(3) Intimacy-2	.575	.510	–		
(4) Conflict	–.207	–.393	–.322	–	
(5) CES-D	–.210	–.289	–.238	.198	–

¹All correlations among the five scales were statistically significant (all $p < .001$).

many fake decoy lines. During a 10-minute orientation, respondents were informed of these protections to their anonymity and that for each behavior they would be asked on the computer screen whether a brother or sister or a mother or a father had been a partner. All participants were unpaid, but many of the students received course credit for their participation. From the records of all potential participants available in the database, we selected as participants all 1,521 females who were not transsexual.

RESULTS

The number of participants who denied having been involved in any one of the 16 voluntary or coerced behaviors with adult male partners (control group) was 1,261, 241 reported participating in any one of the 16 voluntary or coerced behaviors with adult male partners but denied that their father had been a partner (CSA-O group), and 19 indicated that their father had been a partner for one or more of the 16 voluntary or coerced behaviors with adult male partners (FDI group). All 19 in the FDI group had also indicated that CSA by a parent had occurred in their nuclear family. Furthermore, all 19 in the FDI group had also endorsed the item “I was sexually abused by my father or father figure.” Eighteen (94.7%) of the 19 participants that were assigned to the FDI group reported that they had been coerced into one or more of the 8 behaviors by their father, but only 85 (35.3%) of those in the CSA-O group had indicated that they had been coerced into one or more of the 8 behaviors, $\chi^2(1, N = 260) = 23.61, p < .001$. Furthermore, 26.3% of the FDI group framed the behaviors with their father under both the voluntary and the coerced categories while 68.4% framed the behaviors with their father solely under the coerced category, supporting our decision to combine the data from both categories for the purposes of this report in order to more accurately summarize the experiences of these FDI victims. Voluntary or coerced coitus with an adult male had been experienced by 164 (68%) of those in the CSA-O group and 10 (52%) of those in the FDI group before reaching age 18, and 7 (36%) of those in the FDI group had been coerced by their fathers into sex that included vaginal penetration before age 18. In only 3 of the FDI cases did the participant indicate that her father had been reported to the authorities, and in only two cases did he actually serve time in prison. In the third case, the father was not convicted. The number of adult male partners with whom victims of FDI and victims of CSA-O engaged in each of the 8 behaviors is presented in Table 3, the number of times they

engaged in each behavior is presented in Table 4, and the earliest age reported for engaging in each behavior is presented in Table 5.

Hypothesis 1: CSA by Adult Male Perpetrators Has Global Adverse Effects on Female Victims

Victims of FDI had significantly more problematic scores than the control group on the CES-D depression scale (Table 1). Both victim groups (FDI and CSA-O) were significantly more likely than the controls to endorse feeling like damaged goods; thinking that they had suffered psychological injury; being distant from both parents or distant from father and close to mother in high school; having nightmares about adults that they had sexual experiences with as a child; having cheated on their spouse or partner by having sex with men; having engaged in sex to obtain money, drugs, or other goods; having undergone psychological treatment for CSA; and not having discussed their childhood sexual experiences with their spouse or partner. Victims of FDI (but not victims of CSA-O) were more likely than controls to endorse being distant from both parents or distant from father and close to mother at time of participation and to endorse still having long-term anger or being estranged from one or more parents (Table 6).

TABLE 3 Number of Partners

Behavior	CSA-O			FDI		
	Median	Range	<i>n</i>	Median	Range	<i>n</i>
A of any kind	2	1–50	241	1	1–54	19
B having the male partner touch your breasts	1	1–50	195	1	1–54	12
C male partner looking at your genitals	1	1–50	140	1.5	1–54	10
D looking at your male partner’s genitals	1	1–50	147	1	1–34	13
E touching your male partner’s genitals	1	1–50	173	1.5	1–34	12
F touching your male partner’s genitals with your genitals	1–50	1–50	151	1	1–19	13
G having the male partner touch your genitals	1–50	1–50	186	1	1–34	18
H male partner inserting his penis into your vagina	1–50	1–50	164	1	1–19	10

Note: The data presented for the FDI victims are restricted to those who engaged in the behavior one or more times with their father; the number of partners indicates the total number of adult males with whom they engaged in the behavior before reaching age 18, one of whom was their father.

TABLE 4 Number of Times

Behavior	CSA-O			FDI		
	Median	Range	<i>n</i>	Median	Range	<i>n</i>
A of any kind	20	1–1200	241	50	1–1998	19
B having the male partner touch your breasts	20	1–999	195	10	1–1998	12
C male partner looking at your genitals	20	1–999	140	20	2–1998	10
D looking at your male partner's genitals	20	1–999	147	20	2–1998	13
E touching your male partner's genitals	22	1–999	173	28	2–1998	12
F touching your male partner's genitals with your genitals	21	1–999	151	30	2–1998	13
G having the male partner touch your genitals	21	1–999	186	33	1–1998	18
H male partner inserting his penis into your vagina	30	1–999	164	20	3–240	10

Note: The data presented for the FDI victims are restricted to those who engaged in the behavior one or more times with their father; data presented here are the number of times summed over the partners listed in Table 2.

TABLE 5 Earliest Ages Participants Reported Engaging in Each of the Eight Behaviors Constituting Child Sexual Abuse

Behavior	CSA-O			FDI		
	Median	Range	<i>n</i>	Median	Range	<i>n</i>
A of any kind	16	2–17	241	7***	1–14	19
B having the male partner touch your breasts	16	6–17	195	6.5***	1–14	10
C male partner looking at your genitals	16	5–17	140	7***	1–12	9
D looking at your male partner's genitals	16	2–17	147	5.5***	1–12	12
E touching your male partner's genitals	16	4–17	173	5***	1–12	11
F touching your male partner's genitals with your genitals	16	4–17	151	6.5***	1–14	10
G having the male partner touch your genitals	16	2–17	186	6.5***	1–12	16
H male partner inserting his penis into your vagina	16	5–17	164	8***	6–14	7

Note: the data presented for the FDI victims are restricted to those who engaged in the behavior one or more times with their father; data presented here represent the earliest age that they engaged in the behavior with any of the adult male partners listed in Table 2.

* $p < .05$, ** $p < .01$, *** $p < .001$ based on the rank-F test.

TABLE 6 Items with Categorical Responses

	Controls		CSA-O		FDI		Controls vs. CSA-O ³		Controls vs. FDP ³		CSA-O vs FDP	
	<i>n</i>	% ¹	<i>n</i>	% ¹	<i>n</i>	% ¹	<i>N</i>	χ^2, p	<i>N</i>	χ^2, p	<i>N</i>	χ^2, p
Item 5. I feel like damaged goods	80	6.3	35	14.5	14	73.7	18.00, <.001	115.01, <.001	36.53, <.001			
Item 6. I have suffered psychological injury	55	4.4	30	12.4	15	78.9	23.29, <.001	187.25, <.001	49.87, <.001			
Item 7. Distant from both parents or distant from father and close to mother in high school	452	35.8	117	48.5	16	84.2	13.34, <.001	16.85, <.001	7.59, .018			
Item 8. Distant from both parents or distant from father and close to mother at time of participation	314	24.9	74	30.7	16	84.2	3.26, <i>ns</i>	31.38, <.001	19.98, <.001			
Item 9. I still have long-term anger or am or I am estranged from one or more of my parents	187	14.8	30	12.4	12	63.2	0.75, <i>ns</i>	29.72, <.001	29.80, <.001			
Item 10. The only way that the adult(s) that I had sexual experiences with as a child have ever appeared in any of my dreams was in nightmares and the feeling was terror or horror	22	1.7	15	6.2	11	57.9	15.08, <.001	213.14, <.001	46.66, <.001			
Item 11. I have cheated by having sex with women	31	2.5	11	4.6	2	10.5	<i>ns</i> ²	<i>ns</i> ²	<i>ns</i> ²			
Item 12. I have cheated by having sex with men	146	11.6	51	21.2	8	42.1	<.001 ²	.003 ²	. <i>ns</i>			
Item 13. I have engaged in sex to obtain money, drugs, or other goods	22	1.7	14	5.8	3	15.8	.003 ²	.015 ²	<i>ns</i> ²			
Item 14. I have undergone psychological treatment for my childhood sexual abuse.	25	2.0	16	6.6	11	57.9	<.001 ²	<.001 ²	<.001 ²			

(Continued)

TABLE 6 (Continued)

	Controls		CSA-O		FDI		Controls vs. CSA-O ³		Controls vs. FDI ³		CSA-O vs. FDI ³	
	<i>n</i> ¹	% ²	<i>n</i> ¹	% ²	<i>n</i> ¹	% ²	<i>N</i>	χ^2, p	<i>N</i>	χ^2, p	<i>N</i>	χ^2, p
Item 15. When I tried to open up with another person about my childhood sexual experience, he/she reacted with horror and disgust.	28	2.2	11	4.6	5	26.3	3.52, <i>ns</i>	<.001 ²	<.001 ²	0.42 ²		
Item 16. I have not discussed all of my childhood sexual experience with my spouse or long-term partner because I felt that he/she might not handle it well.	189	15.0	67	27.8	10	52.6	<.001 ²	<.001 ²	<.001 ²	<i>ns</i> ²		
Item 17. I have experienced an unplanned pregnancy.	230	18.2	67	27.8	7	36.8	.003	<i>ns</i> ²	<i>ns</i> ²	<i>ns</i> ²		
Sex of any kind with females who were under age 18 before reaching age 18	247	19.6	65	27.0	4	21.0	6.26, .036	<i>ns</i> ²	<i>ns</i> ²	<i>ns</i> ²		
Sex of any kind with males who were under age 18 before reaching age 18	600	47.6	166	68.9	13	68.4	35.88, <.001	2.48, <i>ns</i>	1, <i>ns</i>			

¹All numbers and percentages are for those who agreed with the statement. The numbers and percentages of those who disagreed can be found by subtraction.

²The *p*-values were calculated using Fisher's exact test because one or more cells had expected counts of less than 5.

³A Bonferroni correction has already been applied to each *p*-value in this table; Each presented *p*-value was multiplied by 3 to correct for the 3 comparisons made for each item.

Victims of FDI (but not victims of CSA-O) were more likely than controls to report negative reactions to disclosure about childhood sexual experiences (Table 6). The 2×2 cross-tabulation between the responses to the disclosure items (items 15 and 16) showed that 45.5% of the 44 participants who reported a previous negative reaction to disclosure about childhood sexual experiences did not discuss all of their childhood sexual experience with their spouse or long-term partner because they felt that “he or she might not handle it well.”

Both victims of FDI and victims of CSA-O experienced their first coitus with a male significantly earlier than the control group when coitus with males of *all* age groups was considered (Table 7). Approximately 68% of both FDI and CSA-O victims (but only 47.6% of controls) had voluntary or coerced sex of any kind with male partners when both the victims and the participants were under age 18. Furthermore the median number of 5 male partners for those in the CSA-O group who engaged in the behavior was significantly higher than the corresponding median number of 3 male partners in the control group.

After reaching age 18, both victims of FDI and victims of CSA-O had a significantly higher number of adult sexual partners than controls (Table 7). Victims of CSA-O (but not victims of FDI) also reached orgasm with a significantly higher number of partners than controls when both they and their partners had been adults at the time that the sexual behavior occurred (Table 7). By the time that they reached their 18th birthday, the 241 CSA-O victims had engaged in sex of any kind with a total of 713 adult males ($M=3$ partners each) and had engaged in coitus with 500 of the 713 men ($M=2$ partners each; Table 3). Although not shown in Table 3, by the time that they reached their 18th birthday, the 19 victims of FDI had engaged in sex of any kind with a total of 87 adult males ($M=4.6$ partners each; 68 other than their fathers) and had engaged in coitus with 34 of the 87 adult males ($M=1.8$ partners each; 27 other than their fathers). Both victims of FDI and victims of CSA-O were more likely than controls to engage in sex to obtain money, drugs, or other goods. Unplanned pregnancy had been experienced at least once in their lifetimes by 27.8% of CSA-O victims and 36.8% of FDI victims but by only 18.2% of controls (Table 6). When the CSA-O and FDI groups were pooled to create a 2×2 statistical table with a larger n for the victims group, the pooled pregnancy rate was 28.5% for the pooled victim groups versus the 18.2% for the controls, $\chi^2(1, N=1521) = 13.45, p < .001$.

Hypothesis 2: The Global Effects of FDI Are More Severe Than Those of CSA-O

The FDI group was significantly more likely than the CSA-O group to endorse feeling like damaged goods, thinking that they had suffered psychological injury, being distant from both parents or distant from father and close to mother in high school and at the time of study participation, being angry or estranged from one or both parents, having nightmares about adults that they had sexual experiences with as a child, having undergone psychological treatment for CSA, and having had the listener react with horror and disgust when she tried to open up with another person about her childhood sexual experience (Table 6).

Reaching orgasm with an adult male after age 18									
Number of partners	2	1-999	939	3a*	1-300	204	2	1-250	16
Number of times	80	1-999	815	95	1-999	204	110	2-999	16
Reaching orgasm by accepting your male partner's penis into your vagina after age 18									
Number of partners	2	1-999	815	2	1-300	185	2	1-250	14
Number of times	80	1-999	815	94	1-999	185	125	2-999	14
Bringing your male partner to orgasm by accepting his penis into your vagina after age 18									
Number of partners	3	1-500	916	4	1-300	213	8.5a*	1-250	14
Number of times	150	1-999	916	150	1-999	213	275	5-999	14

¹The data for the FDI group of Table 6 were not restricted to only behaviors with the father: Behaviors with all adult male partners or female partners were included.

Note: a = comparison to Control group, b = comparison to CSA-O group.

* $p < .05$, ** $p < .01$, *** $p < .001$, using Scheffé's correction for multiple post-hoc comparisons using the rank-t test.

Hypothesis 3: FDI Starts Earlier Than CSA-O

The participants who were victims of FDI were initiated into all 8 of the behaviors significantly earlier than the participants in the CSA-O group—at median ages ranging from 5 to 9 years of age (Table 5). In contrast, the median age for initiation of the 8 behaviors was age 16 for participants who were victims of CSA-O. Based on the median earliest ages at which those in the FDI group were initiated into each behavior, the sequence of behaviors was: victim touching the perpetrator’s genitals (age 5), victim looking at perpetrator’s genitals (age 5.5), perpetrator touched victim’s breasts, perpetrator touched victim’s genitals with his hand, and perpetrator touched victim’s genitals with his penis (all at age 6.5), perpetrator looked at victim’s genitals (age 7), and perpetrator penetrated victims’ vagina with his penis (age 8).

Hypothesis 4: FDI Often Is the First Sexual Experience for the Daughter

We used the earliest ages that the participants had engaged in three different behaviors to test which behavior was antecedent to the other. The behaviors evaluated were: masturbation, voluntary or coerced sex of any kind with males or females when both the participant and their partner were under age 18, FDI, and CSA-O. The difference in the earliest ages were calculated by subtracting the earliest age with an adult male partner from the earliest age for the other behavior (e.g., if a participant was 16 when she engaged in sex of any kind with a boy of 16 and 7 when she engaged in sex with her father, the sign of the 9-year age difference would be negative; the difference would be zero if both events were recorded as occurring at the same age). The differences were also recoded into -1 (for negative) and $+1$ (for 0 and positive) to produce binary variables.

Sex with adult males began after sex with young males (who were under age 18) in 45.2% of the 166 CSA-O cases that engaged in both behaviors, but it began after sex with young males in only 7.7% of 13 FDI cases [$\chi^2(1, N = 179) = 13.45, p = .019$]. Sex with adult males began after sex with young females in 66.2% of the 65 CSA-O cases that engaged in both behaviors, but it began after sex with young females in only 25% of four FDI cases. The percentages were not significantly different due to the small n for FDI cases [Fisher’s exact test, $p = ns$]. Sex with adult males began after self-masturbation in 58.8% of the 182 CSA-O cases that

TABLE 8 Differences in Earliest Ages for Behaviors

Behavior earliest age difference	CSA-O			FDI		
	Median	Range	<i>n</i>	Median	Range	<i>n</i>
Masturbation – sex with adult male partner	-1	-13 to +9	182	2***	0 to +13	15
Sex with female under 18 – sex with adult male partner	-4	-13 to +7	65	5.5*	-2 to +10	4
Sex with male under 18 – sex with adult male partner	0	-12 to +10	166	1*	-4 to +12	13

* $p < .05$, ** $p < .01$, *** $p < .001$ based on the rank F-test.

engaged in both behaviors, but it began after self-masturbation in none of the 15 FDI cases [$\chi^2(1, N = 197) = 17.01, p < .001$]. The means of all three differences were significantly different by the rank-F test, which was more powerful than the chi-square test because the rank-F test was based on continuously distributed variables (Table 8). These data showed that the eroticization process described by Yates (1982) was begun by the daughter's sexual experience with her father for the vast majority of the 19 victims of FDI in our sample.

Hypothesis 5: CSA by Adult Male Perpetrators Has a Deleterious Impact on An Adult Woman's Sexual Adjustment with Her Adult Partners

Victims of FDI had significantly more problematic scores than the control group on the sexual satisfaction scale and Intimacy-2 scale, a measure of communication with their partners about aspects of their sexual relationship (Haning et al., 2007). The participants who were victims of CSA-O had significantly more problematic scores than the control group on the Conflict Scale and Intimacy-1 Scale; Table 3). Both victims of FDI and victims of CSA-O were more likely than controls to cheat on their spouse or long term partner (Table 6). Both victims of FDI and victims of CSA-O were more likely than controls to not discuss all of their childhood sexual experiences with their spouse or partner (Table 6).

Hypothesis 6: FDI Has a More Deleterious Impact on Adult Women's Sexual Adjustment within Her Sexual Relationships with Adult Partners Than CSA-O

Victims of FDI had a significantly more problematic score on the sexual satisfaction scale than the CSA-O group (Table 1). Victims of FDI were more likely than victims of CSA-O to cheat on their spouse or long term partner by having sex with men (Table 6).

DISCUSSION

To our knowledge this is the first study on FDI reported by the victims themselves using an anonymous self-administered computerized survey instrument that allowed both the FDI victims and other participants to enter their own data. Obtaining anonymous data from a large number of unselected participants permitted us to retrospectively sort the participants into the three groups used for the statistical analysis after decoding the data from all participants en masse.

Victims of FDI had more problematic scores on sexual satisfaction, sexual partner intimacy, and depression scales than controls. The sexual satisfaction scores of FDI victims were also significantly more problematic than those of victims of CSA-O. Furthermore, victims of FDI were significantly more likely than the controls or the CSA-O group to endorse feeling like damaged goods, thinking that they had suffered psychological injury, being distant from both parents or distant from father and close to mother in high school and at the time of study participation, being angry or estranged from one or both parents, having nightmares about adults that they had sexual experiences with as a child, having undergone psychological treatment for CSA, and having had the listener react with horror and disgust when she tried to open up with another person about her childhood sexual experience. Victims of FDI (but not victims of CSA-O) were

more likely than controls to report negative reactions to disclosure about childhood sexual experiences. Such experiences may represent one of the processes by which FDI or other childhood sexual experiences can cause psychological harm to the victim through the processes of shaming, suggesting that they had been damaged by the childhood sexual experience, and rejection.

The age at which the FDI began was extremely young in the present sample, ranging from age 5 for touching the perpetrator's genitals to becoming the victim of penile-vaginal penetration by a median age of 8 in a progression consistent with a systematic seduction of the daughter by the perpetrating father over a protracted time and consistent with the histories obtained from the victims in other studies (e.g., Herman, 1981; Meiselman, 1979; Russell, 1986; Yates, 1982) and from other incestuous fathers (de Young, 1982). After being subjected to the initial events of CSA-O or FDI, both groups had similar histories consistent with an increased likelihood of becoming victims of additional adult males before reaching age 18, increasing the risks of poor outcomes that multiple partners entail, such as the unintended pregnancies that were reported by over a third of FDI victims. Furthermore, after reaching age 18, both victim groups had an increased likelihood of having sex with a higher number of adult male partners. Yet it was the victims of FDI (and not those of CSA-O) who were significantly more depressed and less sexually satisfied than the controls. Not surprisingly, our data showed that 84% of the victims of FDI felt distant from both parents or distant from father and close to mother in high school and that 84% felt that way at the time that they participated in the study, indicating a loss of attachment to their fathers. These percentages were significantly higher than we found in either the controls or the victims of CSA-O.

The findings from our study were consistent with harm to the victims of FDI being caused by at least five different mechanisms as discussed by others (e.g., Herman, 1981; Meiselman, 1979, 1990; Russell, 1986; Westerlund, 1992; Yates, 1982). First, very early eroticization leads to a tendency of FDI victims to have a higher number of sexual partners both before and after reaching adulthood and a tendency to cheat on their partners. Second, shaming that occurred early in childhood by hearing that they had engaged in harmful, forbidden sex with their fathers made them feel harmed and damaged. Shaming from FDI victim's sexual experiences with their fathers also interfered with their enjoyment of sex with their partners once they became adults. Third, FDI victims often did not discuss their childhood experiences with their partners once they became adults, and many had not learned to talk about what they were feeling during sex or what they needed from their partners to enjoy themselves sexually even after they became adults. Fourth, as adults many had experienced nightmares that featured their childhood adult sexual partners. Sex with their partners was potentially also hindered by intrusive thoughts and flashbacks. Fifth, loss of attachment to their father, emotional cutoff from the father, and enduring anger at one or both parents left them deficient in one or both internalized paternal and maternal attachment figures and vulnerable to depression. The loss of the paternal attachment figure may be a factor in the difficulty in attachment to male romantic partners as an adult (de Young, 1982; Herman, 1981; Meiselman, 1990; Russell, 1986; Westerlund, 1992).

Furthermore, by providing details about the large number of sexual partners that victims of FDI tend to have before reaching age 18 and the high incidence of unplanned pregnancies (also noted by Herman, 1981), our data suggested that when FDI comes to the attention of treating mental health care professionals, the therapy for the young FDI victim needs to be directed at treating the eroticized victim (Friedrich, 2007; Yates, 1982) and providing her with birth control methods because the likely outcome of removing the father or the daughter from the

home will be for the daughter to find replacement sexual partners (de Young, 1982; Herman, 1981; Meiselman, 1990; Yates, 1982), some of whom may be even more dangerous to her than her father. A family therapy approach to treating the father–daughter victim and family together (Maddock & Larson, 1995; Sheinberg & Fraenkel, 2001) may increase the chance of providing the young FDI victim with an intact home in which to heal, but removing either the FDI victim or the father from the family all but guarantees the creation and perpetuation of an emotional cutoff between the FDI victim and the perpetrator-father (Maddock & Larson, 1995). Techniques on how to do this while addressing safety issues for the victim are available (Maddock & Larson, 1995; Sheinberg & Fraenkel, 2001). A more positive therapeutic resolution of the FDI would lead to maintained and therapeutically repaired attachment between the victim of FDI and the treated perpetrator-father. Such an approach to treatment may lead to better sexual and relationship functioning in the victim’s adult relationships. A potential next-generation benefit of such an enlightened approach to treating FDI families may be to lower the risk that the FDI victim will become the mother of girls who also become victims of FDI (Lev-Wiesel, 2006).

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APPENDIX

Items from S-SAPE1 (©S-SAPE, LLC, 2002, PO Box 11081, Charleston, WV 25339) used in the study.

SEXUAL BEHAVIOR SCREEN

The screen displayed each *behavior* item (one at a time), detailing not only the behavior but also that it was voluntary or coerced. Each item specified the age of the respondent at the time, the age-differential category, and gender of the partner. The questions were presented in a multi-tiered hierarchically structured format. Items 1 and 2 represent second-tier screening questions that only allowed access to third-tier questions if they were answered affirmatively (Haning et al., 2007). Item numbers 1 and 2 are presented as examples of a total of 16 items describing behaviors that described CSA by an adult male.

- Item 1. “Your age range: 1–17 years. Behavior: sexual experimentation of any kind with a male age 18 or older and more than 4 years older than yourself. Give your best guess for numbers—don’t get hung up on being precise!”
- Item 2. “Your age range: 1–17 years. Behavior: coerced sexual situations of any kind with a male age 18 or older and more than 4 years older than yourself. Give your best guess for numbers—don’t get hung up on being precise!”

The subsequent third-tier items describing behaviors that constituted CSA by an adult male were constructed by the computer program by substituting the following seven phrases (labeled “b” through “h” for the behavior phrase in items 1 and 2.

- a. “of any kind”
- b. “involving having the male partner touch your breasts”
- c. “involving the male partner looking at your genitals”
- d. “involving looking at your male partner’s genitals”
- e. “involving touching your male partner’s genitals”
- f. “involving touching your male partner’s genitals with your genitals”
- g. “involving having the male partner touch your genitals”
- h. “involving the male partner inserting his penis into your vagina”
- i. “involving your reaching orgasm with a male”
- j. “involving your reaching orgasm by accepting your male partner’s penis into your vagina”
- k. “involving bringing your male partner to orgasm by accepting his penis into your vagina”

The unchanged items b through h were substituted into item 1. Similar substitutions were made for each phrase into item 2 except that the phrase “the coercing male” was substituted for “your male partner” whenever it occurred. Items i–k were paired only with age ranges indicating that both partners were at least 18 years old when the behavior occurred.

Sexual Behavior Sub-Items

The following sub item variables were the actual prompts used in the sexual behavior screen to obtain the data used in this research.

- a. “Did you ever engage in this behavior in this age range? (No/Yes coded 0/1)
- b. “Number of partners:”

- c. “On about how many occasions did you engage in this behavior?”
- d. and e. “What were the earliest and latest ages in the [applicable age range] age interval that you engaged in this behavior?”
- e. “Was mother involved?” or “Was father involved?” These questions were only asked when the partner described in the item was more than four years older and over age 18 and of the female sex (for mother) or the male sex (for father), respectively. (No/Yes coded 0/1)

Items 3 and 7–10 were presented as multiple choice while items 4–6, and 11–17 were presented as agree/disagree and coded 1/0.

- Item 3. “The best way to describe my family of origin’s experience with child sexual abuse at the hands of my parents is as follows: (a) There were never any parental behaviors that could be described as child sexual abuse. (b) Whatever child sexual abuse that did occur was never brought to the attention of the authorities in any way. (c) Child sexual abuse of me or my siblings did occur, and it was brought to the attention of the authorities.”
- Item 4. “I was sexually abused by my father or father figure.”
- Item 5. “My childhood sexual experiences left me feeling like damaged goods, that my value had been diminished.”
- Item 6. “I have suffered serious psychological injury as a result of one or more of my childhood sexual experiences.”
- Item 7. “The best way to describe the feelings of closeness that I had toward my parents as a child of high school age is: (a) I felt very distant and estranged from both parents. (b) I felt close to my mother but distant from my father. (c) I felt close to my father but distant from my mother. (d) I felt close to both parents but somewhat closer to my mother. (e) I felt close to both parents but somewhat closer to my father.”
- Item 8. “The best way to describe the feelings of closeness that I have toward my parents now (or up until their death[s]) is: (a) I feel very distant and estranged from both parents. (b) I feel close to my mother but distant from my father. (c) I feel close to my father but distant from my mother. (d) I feel close to both parents but somewhat closer to my mother. (e) I feel close to both parents but somewhat closer to my father.”

For items 7 and 8, answers a and b were coded as “1” and answers c and d were coded as “0” to create binary variables.

- Item 9. “The best way to describe my relationships with other members of my family of origin is: (a) I have never had long-term anger at or estrangement from either parent or any sibling, and I have good relationships with all members of my family of origin today. (b) I still have long-term anger at or I am estranged from one or more of my parents or siblings. (c) Although I had long-term anger at or was estranged from one or more of my parents or siblings, we have worked through our issues and we now have good relationships.”
- item 9, answer (b) was coded as “1” and all other answers were coded as “0” to create a binary variable.
- Item 10. “The best way to describe my adult dreams about adults who I had sexual experience (of any sort) with as a child is: (a) I still find that one or more of the adults that I had childhood sexual experiences with appear in dreams linked with sexual arousal, and I am comfortable with that. (b) I still find that one or more of the adults that I had childhood sexual experiences with appear in dreams linked with sexual arousal, and I am uncomfortable with that. (c) While I had

childhood sexual experiences with one or more adults and they appeared in dreams linked with sexual arousal in the past, they have not appeared in dreams for many years. (d) The only way that the adult(s) that I had sexual experiences with as a child have ever appeared in any of my dreams was in nightmares and the feeling was terror or horror. (e) None of the above: I either had no childhood sexual experiences with adults or I had no dreams about them linked to either sexual response or nightmares.”

For item 10, answer d was coded as “1” and all other answers were coded as “0” to create a binary variable.

- Item 11. I have cheated on my spouse or long-term partner by having sex with women during our relationship.
- Item 12. “I have cheated on my spouse or long-term partner by having sex with men during our relationship.”
- Item 13. “I have engaged in sex for the specific purpose of obtaining money, drugs, or other goods in exchange for sex.”
- Item 14. “I have undergone psychological treatment for my childhood sexual abuse.”
- Item 15. “When I tried to open up with another person about my childhood sexual experience, he or she reacted with horror and disgust.”
- Item 16. “I have not discussed all of my childhood sexual experience with my spouse or long-term partner because I felt that he or she might not handle it well.
- Item 17. “I have experienced an unplanned pregnancy.”