



# Reactions of Boys and Girls to Sexual Abuse and to Sexual Encounters with Peers

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## Abstract

To understand the etiology and consequences of child sexual abuse it is important to study the victims' subjective reactions to such incidents. Because researchers have not been able to survey children about sexual abuse, not much is known about how subjective reactions are related to gender, age, age difference, and the social relationship between the offender and victim. The present study fills this gap using data gathered from a large, nationally representative sample of Finnish children ages 11 to 17 ( $N = 32,145$ ). Analyses of abuse are based on a sample of 1520 children (78% girls), while analyses of peer sexual experiences are based on a sample of 3551 children (55% girls). Multivariate analyses adjusted for the use of coercion, the intimacy of the sexual experience, and other incident characteristics. It was hypothesized that, as a result of sex differences in sexuality and attitudes toward deviant behavior, girls are more sensitive than boys to age and age difference. Three findings supported the hypothesis: (1) girls were more likely than boys to have a negative reaction to sexual encounters regardless of the age difference; (2) for girls, age was negatively associated with the likelihood of a negative reaction, but age had no effect for boys; and (3) girls reacted negatively to age difference while boys did not. However, girls did not react more negatively unless the offender was at least eight years older. The results highlight the susceptibility of adolescent boys to encounters with older women. They further suggest that ignoring the role of the victim limits understanding of the vulnerability of young people to sexual abuse.

## Introduction

In most cases of child sexual abuse, offenders use manipulation rather than overt force to gain compliance (e.g., Leclerc et al. 2006; Rebocho and Gonçalves 2012). It is therefore important to study the reaction of victims to sexual advances from offenders. If children and teenagers have ambivalent or positive reactions to these incidents, they may be more compliant, less likely to report the offense, and more vulnerable to re-victimization. Studying subjective

reactions is also important for understanding the mental health consequences of child sexual abuse (e.g., Finkelhor 1987; Russell 2005; Wekerle et al. 2001). Although having a negative reaction at the time of the victimization is not a necessary condition for experiencing long-lasting trauma, the detrimental effects of abuse on mental health are at least partially mediated by the victims' subjective response (e.g., Carlin et al. 1994; Lazarus and Folkman 1984; McGee et al. 1997; Russell 2005).<sup>1</sup>

The literature on the victims' subjective reactions to child sexual abuse is limited. Prior studies have relied on small convenience samples of college students and older adults (reviewed below). The responses of adults to past incidents may be very different from the more contemporaneous reaction of children and adolescents. The current study is

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<sup>1</sup> The investigation of subjective reactions to abuse is controversial, especially if the results suggest that some victims do not have negative reactions to such incidents (Dreger 2015; Rind et al. 1998). Scholars may be concerned that this kind of evidence increases tolerance for illegal and immoral behaviors and stigmatizes innocent young victims. We believe that the benefits of examining the subjective reactions outweighs the risks.

novel in that it uses data from a large, nationally representative sample of youth (ages 11–17). Most of the incidents reported by the mostly adolescent respondents occurred around the time of the survey administration, and some were on-going. The current study is also the first to compare subjective reactions to abuse and peer sexual behavior. This comparison permits a full examination of the association between subjective reactions and victim-offender age differences, as these data include information about encounters with individuals who were younger, the same age, slightly older, and several years older than the respondent. Peer comparisons also help determine whether subjective reactions to child sexual abuse are specific to those incidents or whether they reflect reactions to sexual experiences in general among children and teens.

Specifically, this research investigates whether subjective reactions to child sexual abuse depend on the victims' gender and age, as well as the age difference and relationship between the child and the other person. While victim age and victim-offender age difference are the defining characteristics of child sexual abuse, knowledge about their impact on the reactions of victims is limited. Theoretically, the current study examines how sex differences in sexuality and antisocial behavior generate differences in subjective reactions to sexual abuse. An ancillary research question is whether gender differences in reactions reported in prior research (see below) are due to the gender of the victim or the offender, or some combination of both. The large sample at our disposal permits an examination of same-sex incidents as well as opposite-sex incidents.

### Subjective Reactions to Child Sexual Abuse

Most studies of child sexual abuse define it as sexual activity involving youth under 18 years of age with someone at least 5 years older. Some studies focus on incidents involving actual physical contact, while other studies also include incidents where an older person attempted to engage in sexual activity with a younger person or encouraged such behavior through suggestions and innuendo. Some studies were restricted to “unwanted” or coercive sexual encounters. Most studies are based on small samples, which may explain why they were unable to perform multivariate analyses.

Prior research consistently shows that girls are more likely to respond negatively to child sexual abuse (Haugaard and Emery 1989; Nelson and Oliver 1998; Rind and Welter 2014; Ullman and Filipas 2005). Only one study has examined gender differences in the effect of age difference on subjective reactions (Rind and Welter 2014). It was based on Kinsey's data—collected from 1938 to 1953—where adults were asked how they reacted to their first experience with sexual intercourse. The study found that

female respondents who had intercourse before age 15 with a male who was at least 5 years older were more likely to describe the event as negative when the age difference was large. No such difference was observed for male respondents. Two small-scale surveys of female college students suggest that younger girls react more negatively to abuse than older girls (Long and Jackson 1993; Nelson and Oliver 1998).

Because these studies focused on heterosexual encounters, they cannot rule out the possibility that the observed gender differences in subjective reactions reflect the effects of the gender of the offender rather than the gender of the victim. For example, this pattern may emerge if girls are more likely to be abused by males and if male offenders produce more negative reactions than female offenders. It is also possible that there is a statistical interaction between the gender of the offender and the gender of the victim. Boys may react more negatively to same-sex encounters than girls do. Male homosexuality carries a greater stigma than lesbianism, perhaps because social constructions of masculinity are more rigid than those of femininity (e.g., Bem 1993; Hort et al. 1990; Martin 1990). In addition, males tend to hold more negative attitudes toward same-sex relationships than females (e.g., Herek 2000; Friedman and Downey 1999; Skidmore et al. 2006) and they may be more threatened by challenges to their heterosexual identity (Durham 2003).

Only two studies have examined whether reactions to abuse depend on the relationship between the victim and offender. Condy et al. (1987) studied a sample of 251 male inmates and college students who had been sexually abused by a female when they were younger. The authors found that victims were more likely to describe their immediate reaction to the incident negatively if the offender was a relative versus someone outside their family. In contrast, a study of 124 female college students who had experienced abuse did not find a statistically significant incest effect, possibly due to insufficient statistical power (Bennett et al. 2000; Fischer 1991). No prior study has examined whether victims react more negatively to abuse by a stranger than to abuse by someone they know.

### Subjective Reactions to Peer Sexual Encounters

The literature on peer sexual encounters is far more extensive than the literature on abuse and features far more studies based on multivariate analyses of data from large samples. However, we are not aware of a single prior study that has compared reactions to child sexual abuse to reactions to peer sexual encounters. It is surprising that peer experiences have been studied separately from child sexual abuse given that both literatures are concerned with sexual behavior involving youth.

The literature on peer encounters, like the literature on abuse, suggests that girls are more likely than boys to report negative reactions (for a review, see Vasilenko et al. 2014). For example, girls are more likely to express regret and less likely to describe the sexual encounters as exciting, pleasurable, or status-enhancing (e.g., Higgins et al. 2010; Kreager and Staff 2009; Osorio et al. 2012; Vasilenko et al. 2015). The literature also shows that girls are more likely than boys to report being pressured by their partner to engage in sexual behavior (e.g., Walsh et al. 2011; Wight et al. 2008).

Because studies of adolescent peer experiences also focus almost exclusively on heterosexual encounters, they too are unable to disentangle the effects of the victim's gender from that of the offender. One exception is a study of reactions to first genital contact during adolescence (Parkes et al. 2011), which found that boys were more likely to report that they regretted the experience and felt pressured when their partner was a male. The reactions of girls did not depend on the other party's gender. A study of adults also implies that males are more sensitive to the partner's gender (Lippa 2006). It found that for men, a strong sex drive was associated with increased sexual attraction to only one sex or the other, depending on the man's sexual orientation. For women, a strong sex drive was associated with increased sexual attraction to both men and women.

Youth who engage in peer sexual activity at younger ages tend to feel more negative about the experience (for a review, see Hawes et al. 2010). The age of the child also has implications for gender differences. Walsh et al. (2011) found that female college students were more likely than male college students to have reported a negative reaction to their first coitus if it occurred during early or middle adolescence, but not if it occurred in late adolescence. Wight et al. (2008) found that girls were particularly likely to regret their first experience of coitus if it occurred at younger ages. On the other hand, a Belgian study found that only boys had a more negative reaction to coitus if the experience occurred at a younger age (Symons et al. 2014).

### Sex Differences in Sexuality and Antisocial Behavior

One of the most well-established differences between males and females involves sexuality (e.g., Baumeister et al. 2001; Buss 2000). Males are less discriminate in their choice of sexual partners, have a stronger sex drive, a greater desire for sexual variety, a greater willingness to engage in casual sex, and a lower ability to abstain from sexual activity (e.g., Baumeister and Tice 2001; Laumann et al. 1994). Sex differences in sexuality emerge prior to puberty (for a review, see Okami and Shackelford 2001). For example, boys fantasize about sexual experiences at younger ages and with greater frequency than girls (Ellis and Symons 1990; Knoth

et al. 1988). While the fantasies of boys are more likely to be intense, distracting, sexually explicit, and positive, the fantasies of girls are more likely to occur in the context of a real or imagined romantic relationship (Gold and Gold 1991).

Boys and girls may respond differently to early sexual encounters due to sex differences in sexuality. Boys should be more susceptible to attempts to influence them to engage in sexual activity and less likely to be affected by the characteristics of the other person. Sex differences in sexuality may also lead girls to have more negative reactions to sexual abuse than boys.

Gender differences in reactions to sexual abuse may also reflect the antisocial or deviant nature of the experience. Research has shown that gender differences in deviant behavior emerge during early childhood and persist into adolescence (e.g., Staff et al. 2015). Since sexual activity with adults is a form of deviant behavior, girls may respond more negatively than boys to abuse encounters because they are less inclined to engage in deviant behavior.

Gender differences in sexuality and attitudes toward deviance suggest a number of differences in the way boys and girls react to sexual solicitations and encounters. First, sex differences in sexuality may lead girls to react more negatively to sexual activity with *anyone*. Girls may be more negative about sexual activity with their peers as well as older people. Second, the reactions of girls may be more dependent on their own age. If sexual activity involving young children is more deviant than sexual activity involving adolescents, then it should elicit a much more negative reaction from young girls than older girls. The age effect on boys should be weaker if they are more accepting of deviant behavior than girls. Third, age difference should have a stronger effect on the reaction of girls. If girls are more discriminating in their sexuality than boys, they may be more likely to react negatively to abuse than to peer experiences, as well as to abusers who are much older. Gender differences in deviance would have the same effect. The greater the age difference, the more deviant the sexual activity. If boys are more accepting of deviant sexuality, age difference should be less important to them. Finally, girls may be more likely than boys to react negatively when the other person is a stranger compared to someone they know outside of their families. This gender difference could result either because girls are more discriminating in their sexual behavior or because sex with strangers is deviant behavior and girls are less willing to engage in deviant behavior.

### Current Study

The current study defines child sexual abuse victimization as any sexual experience between a minor and a person at

least 5 years older. It examines four research issues. First, the study investigates variation in reactions to sexual experiences by age, age difference, and gender. As suggested above, sex differences in attitudes toward sexuality and deviance should make girls more sensitive to age. Specifically, younger girls should be more likely than older girls to report negative reactions; girls should respond more negatively to abuse than to peer encounters; and girls should be more likely to report negative reactions when offenders are much older. The corresponding associations should be weaker among boys. The current study also examines whether reactions have a linear relationship with age difference and how closely subjective reactions correspond to the legal standard of sexual abuse. Sexual activity between a minor and someone who is at least five years older is considered illegal in Finland (as it is in the United States). Legal standards reflect adult standards. It may be that young people use a different standard of age-appropriateness in judging their own sexual experiences.

Second, the study examines whether girls are more likely than boys to have a negative reaction to incidents of abuse and whether the same holds for peer experiences. If gender differences in reactions to abuse and peer experiences are similar, it would suggest that the difference reflects sex differences in sexuality. If gender differences in reactions are stronger for abuse than for peer experiences, then the explanation is less clear. It could be that the difference reflects sex differences in attitudes toward deviant behavior. Abuse is deviant behavior while peer experiences are, to a large extent, normative among adolescents. On the other hand, it could be due to the tendency of males to be more indiscriminant than females when it comes to sexual encounters.

Third, the study examines gender differences in response to sexual experience with strangers versus people they know outside their families. Girls should be more likely to be negative than boys when the other person is a stranger since they are more discriminant in their sexual behavior and since such behavior is more deviant. Girls may also be more negative when the other party is a family member versus other people they know since incestual encounters are highly deviant. Incest is also more likely to involve role conflict and violations of trust (e.g., Rudd and Herzberger 1999). These patterns may be observed whether the family member is older or not.

Finally, the current study examines whether gender differences in reactions to abuse and peer experiences depend on the gender of the other party. Girls may have more negative reactions because the other person is more likely to be male. In addition, boys may react more negatively to same-sex encounters than girls, given the greater stigma.

## Methods

### Sample

The analyses are based on merged data from Finnish youth victimization surveys conducted in 1988, 2008, and 2013 with funding by the Finnish government (e.g., Ellonen and Pösö 2011; Fagerlund and Ellonen 2016). Stratified cluster sampling based on county, type of municipality, and school size was used to produce nationally representative samples of sixth and ninth grade students at the time of the survey. The representativeness of the 2008 and 2013 data was confirmed by an analysis of demographic characteristics. The response rate was 96% in 1988, 88% in 2008 and 75% in 2013. Under the Finnish educational system, sixth graders are typically 12–13 years old, while most ninth graders are 14–15 years old. A total of 32,145 respondents are included in the pooled sample (7,322 from 1988; 13,459 from 2008; and 11,364 from 2013).

The relevant questions from the three surveys were identical except where noted. Respondents in 1988 answered with pen and paper while alone in a room. A school nurse in the next room accepted their completed surveys in envelopes. Respondents in the later surveys accessed the survey on a website using classroom computers. Students were told that they could stop answering at any time; only those who responded to the final screen and pressed the ‘done’ button were included in the sample.

Respondents were included in the analytic sample if they answered affirmatively to the question asking if they had ever experienced sexual contact or interaction with a person who was at least 5 years older at the time of the incident. The questions involved a Finnish modification of Finkelhor’s (1979) questions from his study of sexual abuse. If there were repeated incidents with the same person, the respondent was instructed to focus on “early incidents” in the series. The participants in the 1988 and 2008 surveys could report abuse experiences with up to three different offenders, whereas participants in the 2013 survey were limited to reporting about only one, the most recent, incident. In the merged dataset, 5.4% ( $n = 1,730$ ) of the respondents reported information about at least one incident of sexual abuse corresponding to 2,451 incidents. The percentage of respondents reporting sexual abuse is slightly higher than the percentage in a Danish study of adolescents (Helwig-Larsen et al. 2009) and lower than percentages based on surveys of adults in a variety of countries (e.g., Stoltenborgh et al. 2011). Note that comparisons with the adult surveys are difficult to interpret because of differences between countries and differences in the questions asked.

Only the ninth grade students participating in the 2008 and 2013 surveys were asked about sexual experiences with peers. These questions were derived from a Danish victimization survey (Helweg-Larsen et al. 2009). Students were asked about their first experience for three categories of sexual interaction: penetrative sex (including vaginal, anal, and oral sex); sexual touching; and other sexual interactions that did not involve physical contact (e.g., suggestions to do something sexual or exposing genitals to another person). Each respondent could therefore describe up to three sexual experiences with similarly aged peers.

For both abuse and peer experiences, the incident is the unit of analysis. Since some respondents reported on multiple incidents, the standard errors are adjusted for clustering within respondents. Multivariate analyses were performed using logistic regression. Cases with missing data were included within our multivariate analyses by assigning them a special code. Cases were excluded from analyses if they were missing information on the respondent's gender, family structure, or the dependent variables. The samples used for analyses included 2,109 abuse incidents (reported by 1,520 respondents) and 5,772 peer encounters (reported by 3,551 respondents). In order to examine gender differences, boys and girls were analyzed separately.

## Measures

### Negative Reactions to Abuse

Two binary measures of victim reactions were used in the analysis of abuse experiences. For the *adjective measure*, respondents were asked to select which of six adjectives described their reaction to the abuse experience when it occurred. These adjectives included disgust, fear, shock, confusion, curiosity, and pleasure. In the 1988 and 2008 surveys, respondents could select multiple adjectives; in the 2013 survey, respondents could select only one. The adjective measure was coded 1 if the respondent selected disgust, fear, or shock, and 0 otherwise. Approximately 18% selected "confusing." The adjective response "confusing" was unrelated to the appraisal measure (described below), while "shock," "fear," and "disgust" were strongly correlated with the appraisal measure.

For the *appraisal measure*, respondents were asked whether they currently felt positively or negatively about the sexual experience. The question was: "If this is over, what best describes your experience now, in retrospect?"<sup>2</sup>

<sup>2</sup> Approximately 18% of the incidents were described as on-going. Most respondents (74%) who indicated that the encounter was on-going still answered the appraisal question. Those that did not were treated as missing data for the analyses of appraisals.

Respondents could select one of five responses ranging from "very positive" to "very negative." The variable was coded 1 if the respondent rated the experience as "very negative" or "somewhat negative," and 0 if the respondent rated the experience as "neutral," "somewhat positive," or "very positive."

### Age and Age Difference

The respondent's *age at the time of the incident* was measured using a three-category variable: 11 or younger (the reference group), 12–14 years old, and 15–17 years old. These groups roughly correspond to childhood, early adolescence, and late adolescence. *Age difference* between the respondent and the older person was calculated by subtracting the respondent's age at the time of the incident from the older person's age. This variable was also grouped into three categories: 5–7 years (the reference group), 8–11 years, and differences of 12 years or more. In some cases, the subtraction produced an age difference of less than 5 years despite the fact the respondent had indicated earlier in the survey that (s)he had a sexual encounter with a person at least five years older. Such incidents were excluded from the analysis of abuse if the reported age difference was less than four years. If the calculated age difference was four years, the incident was included based on the assumption that rounding could have affected reports about their ages or the ages of the abusers. Incidents involving a calculated 4-year age difference occurred in about 14% of experiences reported by female respondents and about 8% of experiences reported by males. A sensitivity check performed to assess the implications of this decision showed that the results were similar in analyses in which these incidents were omitted.

### Social Relationship

A set of three dummy variables was created to capture the relationship between the respondent and the abuser. The abuser is coded as a *stranger* if the respondent did not know the person (prior to the encounter), and as a *family member* if the person was the respondent's parent, sibling, grandparent, cousin, uncle, or aunt. Stepparents and stepsiblings were also categorized as family members. All other relationships were grouped under *known non-family* relationships. This category includes acquaintances, friends, boyfriends, girlfriends, teachers, coaches, and the residual "other" category.

### Overt Use of Coercion

This is a binary variable where incidents are coded 1 if the older person used physical force, coercion, or blackmail to

get the respondent to comply with the sex act, and 0 otherwise.

### Times Repeated

This refers to the number of times the respondent experienced a sexual encounter with the same person. It was coded as a three-category dummy variable: once (the reference group), 2–10 times, and more than 10 times.

### Intimacy

This a measure of the most intimate sexual activity that took place during the encounter. Respondents were presented with ten behaviors ranging from “suggestion to do something sexual” to “sexual intercourse.” The most intimate behavior indicated was used to create three categories: penetrative sex, sexual touching, and other incidents (the reference group).<sup>3</sup>

### Control Variables

The hypothesized associations were examined controlling for parental education, family structure, and the survey year.

**Parental education** Respondents were asked about the highest degree earned by their mother and father. The binary variable was coded 1 if at least one parent had completed college.

**Family structure** Respondents were also asked whether they were living with both biological parents, living in a single-parent household, living with a parent and a step-parent, or living in some other family structure. This information was coded as a binary variable where respondents were coded 1 if they were living in a nuclear family (i.e., with both biological parents) and 0 otherwise.

*Survey Year* was coded as a set of three dummy variables with the 1988 as the reference category.

### Measures Specific to Peer Sexual Encounters

Respondents were asked if they had ever engaged in any of the following types of sexual behavior with similarly aged peers: (a) non-physical sexual behavior (e.g., suggestions to do something sexual, exposing genitals to another person), (b) sexual touching, or (c) penetrative sex with an

age-peer (including vaginal, anal, and oral sex). These are similar to the three categories of “intimacy” that were used for the abuse incidents. For each category, respondents were asked a series of questions about their first experience.<sup>4</sup>

The questions about sexual encounters with peers were the same as the questions about abuse, with the following exceptions. First, respondents were not asked to select adjectives to describe the experience, so only comparisons between abuse and peer experiences using the appraisal measure are possible. Second, the wording for the appraisal measure was slightly different than the one available for abuse. For peer experiences, respondents were asked: “How do you feel about the experience now?” Respondents who answered “negative” were coded 1, while those who answered “positive,” “meaningless,” or “I don’t know, I haven’t thought about it” were coded 0. Third, respondents were not asked whether peer experiences were repeated, so it cannot be used as a control variable. Fourth, the language describing the level of sexual intimacy was slightly different. For peer experiences, oral sex was included in the category of penetrative sex. Also, the term “sexual touching” was used in a general sense for peer experiences while the equivalent category for abuse was created by combining specific kinds of touching.

## Results

Descriptive statistics for the incidents of abuse are presented in Table 1. The results show that girls were much more likely to report negative reactions than boys. Girls were almost four times more likely than boys to use a negative adjective to describe the encounter (46 vs. 12%) and more than three times as likely to report a negative appraisal (35 vs. 11%).

Table 1 also shows that abuse is primarily a crime against adolescents. Relatively few of the incidents occurred when the respondent was under age 12 (10% of girls, 12% of boys).<sup>5</sup> Most incidents involved offenders who were relatively close in age to the victim. For example, 76% of girls and 83% of boys were abused by someone between 5 and 11 years older. Approximately two out of three offenders were people the respondent knew outside their family. Offenders rarely used overt force (11.5%), supporting the argument that it is important to understand factors associated with the victim’s agency and

<sup>3</sup> Penetrative sex includes both vaginal and anal sex. Sexual touching includes incidents where one or both parties touched the other’s genitals (either directly or above the clothes) as well as “simulated” sexual intercourse without penetration. Other incidents are those without direct genital contact, such as exposure of the genitals or breasts by one or both parties, or a suggestion to do something sexual.

<sup>4</sup> As defined by the survey, peers could be as much as four years older than the reporting child, but in most cases there was an age difference of less than one year.

<sup>5</sup> This statistic may be biased since the 2013 survey only asked about the most recent incident. However, the pattern was also observed in the 2008 survey

**Table 1** Descriptive statistics for incidents of child sexual abuse (%)

	Girls	<i>N</i>	Boys	<i>N</i>
Reactions to abuse				
Negative adjective	46.5	1621	11.8	474
Negative appraisal	35.1	1529	11.0	437
Age at time of incident				
11 or younger	10.4	1565	11.7	443
12–14	46.3	1565	37.9	443
15–17	43.4	1565	50.3	443
Age difference				
5–7 years	46.0	1325	58.5	405
8–11 years	30.0	1325	24.4	405
12 or more years	24.0	1325	17.0	405
Relationship				
Known non-family	67.1	1638	65.4	460
Family member	6.2	1638	5.7	460
Stranger	26.7	1638	28.9	460
Gender of other person				
Male	98.6	1663	11.1	478
Female	1.4	1663	88.9	478
Overt coercion used				
Yes	12.3	1588	10.6	462
No	87.7	1588	89.4	462
Frequency				
Once	48.1	1158	42.3	376
2–10 times	40.7	1158	45.5	376
Over 10 times	11.2	1158	12.2	376
Intimacy				
Penetrative sex	31.1	1673	63.0	500
Sexual touching	35.9	1673	23.4	500
Other	33.0	1673	13.6	500
Controls				
College-educated parent	33.8	745	45.5	231
Nuclear family	60.1	1833	70.0	607
1988 survey	52.9	1840	52.3	610
2008 survey	35.4	1840	39.0	610
2013 survey	11.7	1840	8.7	610

Percentages are based on data for both sixth and ninth grade respondents from all survey years (1998, 2008, and 2013). Percentages for missing data codes are omitted to conserve space. *N* refers to the number of non-missing responses

compliance. More than half of the cases involved multiple encounters with the same perpetrator. Boys were much more likely to experience same-sex encounters than girls (11 vs. 1%). While girls were much more likely to be victimized (about 80%), boys' victimizations tended to involve more intimate sexual behaviors. For example, boys' experiences were about twice as likely to involve penetration (63.0 vs. 31.1%).

## Multivariate Analyses of Reactions to Sexual Abuse

Table 2 presents logistic regression results based on the adjective measure, while Table 3 presents results based on the appraisal measure. In both tables, the results for girls are presented in the left panel while the results for boys are presented on the right. Note that some of the cell sizes for boys are small (see Table 1), which limits statistical power.

The results show that, all else equal, the younger the girl's age at the time of the incident, the more likely she was to use negative adjectives to describe her experience. If the incident took place when the girl was 11 or younger, the odds of a negative reaction were 5.2 higher than if the incident took place when she was 15 years or older. In contrast, age did not have a significant effect for boys. The gender difference in the effect of age was statistically significant ( $z = 2.08$ ;  $p = 0.038$ ).

Girls were more likely to have a negative reaction if the age difference was 12 years or more, while boys' reactions were not sensitive to age difference. The gender difference in the coefficients was statistically significant ( $z = 2.63$ ;  $p = 0.009$ ). Note, however, that girls were no more likely to report a negative reaction when offenders were 8–11 years older than when the offenders were 5–7 years older. The age difference pattern for girls is examined with more precision below.

Both boys and girls were more likely to have a negative reaction when the offender was a stranger or a family member than when the offender was someone they knew outside the family, although the family member coefficient was of borderline significance ( $p < 0.10$ ) among boys. Finally, both boys and girls were much more likely to use negative adjectives to describe the incident when the offender was a male. The coefficient for males was larger but the gender difference was not statistically significant ( $z = -0.07$ ;  $p = 0.941$ ). Note that among boys, the gender of the offender is by far the strongest predictor of a negative reaction. The odds of a negative reaction to abuse was more than fifty times greater when the offender was male rather than female.

The analyses also revealed significant associations for the incident characteristics. Both boys and girls had a much more negative reaction if the offender used overt force. Surprisingly, girls were less likely to have negative reactions when the encounters involved more intimate sexual activity or occurred with greater frequency. The likely explanation is that victims who had a negative reaction were more resistant to engaging in more intimate activities and repeating the encounter. In other words, the victim's attitude toward the experience may have affected the level of intimacy and the frequency of the encounters. Boys who experienced sexual encounters that were more intimate and more frequent were less likely to have a negative reaction, although only the coefficient associated with the highest frequency (over 10 times) was statistically significant.

**Table 2** Logistic regressions for reactions to abuse incidents (Adjective Measure)+

	Girls			Boys		
	<i>b</i>	SE	OR	<i>b</i>	SE	OR
Age at time of incident						
11 or younger	1.65***	(−0.28)	5.22	0.06	(−1.07)	1.06
12–14	0.63***	(−0.15)	1.89	0.32	(−0.61)	1.38
15–17	reference category	–	–	reference category	–	–
Age difference						
5–7 years	reference category	–	–	reference category	–	–
8–11 years	−0.04	(−0.19)	0.97	−0.14	(−0.80)	0.87
12 or more years	0.67*	(−0.26)	1.95	0.20	(−1.39)	1.22
Relationship						
Known non-family	reference category	–	–	reference category	–	–
Family member	1.51***	(−0.33)	4.54	1.78 <sup>+</sup>	(−0.95)	5.94
Stranger	1.13***	(−0.16)	3.09	1.34*	(−0.58)	3.83
Male offender	2.73**	(−0.85)	15.26	3.93***	(−0.68)	50.8
Overt force	2.72***	(−0.30)	15.10	2.33**	(−0.72)	10.25
Times repeated						
Once	reference category	–	–	reference category	–	–
2–10 times	−0.65***	(−0.17)	0.52	−0.84	(−0.62)	0.43
Over 10 times	−1.26***	(−0.33)	0.29	−3.60**	(−1.11)	0.03
Intimacy						
Penetrative sex	−1.42***	(−0.19)	0.24	−1.23	(−0.81)	0.29
Sexual touching	−0.92***	(−0.17)	0.40	−0.44	(−0.81)	0.65
Other	reference category	–	–	reference category	–	–
<i>N</i> of incidents	1616			471		
Clusters (respondents)	1175			331		

+The adjective measure is based on reports of disgust, fear, and shock. Logistic regression coefficients and odds ratios presented. All models control for survey year, parental education, and whether the respondent lived in a nuclear family. Regressions are based on experiences reported by sixth and ninth grade respondents to the 1998, 2008, and 2013 surveys. The constant and missing data codes are omitted to conserve space. Standard errors adjusted for clustering within respondents

<sup>+</sup> $p < 0.1$ , \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

The results in models using the appraisal measure were generally similar to those with the adjective measure (see Table 3). Age and age difference mattered to girls, but not to boys. Both boys and girls were more likely to have a negative appraisal when they were victimized by family members or strangers as compared to being victimized by someone they knew outside the family. Both boys and girls were also more likely to react negatively to male offenders. While the association for girls was much weaker and not statistically significant, the difference between girls and boys was not statistically significant ( $z = -1.36$ ;  $p = 0.173$ ). Both boys and girls were more likely to react negatively if coercion was used, but the effect for boys was weaker and not statistically significant. Finally, intimacy and frequency were significantly related to the girls' appraisals but not to the appraisals of boys.

Supplementary analyses examined whether boys or girls were more likely to initiate the abusive encounter. Sex

differences in sexuality and deviance imply that males are more likely to initiate sexual encounters than females. The analyses (results not presented in tabular form) were based on a question in which victims were asked who initiated the sexual activity. They showed that boys were much more likely to initiate the encounters than girls (37.44 vs. 6.81%). A logistic regression equation that controlled for the gender of the offender confirmed the finding: boys were much more likely to have initiated the sexual encounters than girls ( $b = 1.1$ ;  $p = 0.007$ ). In addition, victims of abuse were much more likely to report that they initiated encounters with female offenders than male offenders ( $b = -1.2$ ;  $p = 0.003$ ).

### Comparing Abuse to Peer Experiences

Descriptive statistics for boys and girls who have had sexual experiences involving peers of similar age are presented in Table 4. Recall that these analyses were limited to ninth

**Table 3** Logistic regressions for reactions to abuse incidents (Appraisal Measure)

	Girls			Boys		
	b	SE	OR	b	SE	OR
Age at time of incident						
11 or younger	1.34***	(−0.26)	3.81	0.90	(−0.81)	2.47
12–14	0.41**	(−0.15)	1.51	0.02	(−0.42)	1.02
15–17	reference category	–	–	reference category	–	–
Age difference						
5–7 years	reference category	–	–	reference category	–	–
8–11 years	0.26	(−0.17)	1.30	−1.69+	(−0.96)	0.18
12 or more years	0.58*	(−0.24)	1.78	−0.05	(−0.55)	0.95
Relationship						
Known non-family	reference category	–	–	reference category	–	–
Family member	1.40***	(−0.32)	4.04	0.89	(−0.55)	2.44
Stranger	0.56**	(−0.17)	1.75	0.78+	(−0.41)	2.18
Male offender	0.35	(−0.81)	1.41	3.12***	(−0.67)	22.73
Overt force	1.66***	(−0.25)	5.23	0.56	(−0.61)	1.74
Times repeated						
Once	reference category	–	–	reference category	–	–
2–10 times	−0.32 <sup>+</sup>	(−0.18)	0.73	−0.42	(−0.44)	0.66
Over 10 times	−0.63*	(−0.30)	0.53	−0.44	(−0.87)	0.64
Intimacy						
Penetrative sex	−0.85***	(−0.20)	0.43	0.12	(−0.86)	1.12
Sexual touching	−0.29	(−0.18)	0.75	0.21	(−0.89)	1.23
Other	reference category	–	–	reference category	–	–
N of incidents	1524			434		
Clusters (respondents)	1105			310		

Logistic regression coefficients and odds ratios presented. All models control for survey year, parental education, and whether the respondent lived in a nuclear family. Regressions are based on experiences reported by sixth and ninth grade respondents to the 1998, 2008, and 2013 surveys. The constant and missing data codes are omitted to conserve space. Standard errors adjusted for clustering within respondents

<sup>+</sup> $p < 0.1$ , \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

grade students from the two most recent waves of the survey (2008 and 2013), and that only the appraisal measure of negative reaction was available. Of these 10,870 respondents, 3,771 reported on one or more sexual experiences with a peer, which corresponds to about 34.7% of all ninth grade respondents in 2008 and 2013. Descriptive statistics in Table 4 are for the sample used for analysis.

For comparison, Table 4 also presents statistics on sexual abuse incidents for the ninth grade sample, including ninth graders from the 1988 survey. The 1988 sample was included in order to have sufficient statistical power for boys. The results are similar for girls when the 1988 data is omitted. A comparison for boys was not feasible due to insufficient sample size when the 1988 data was omitted.

The pattern of findings is generally similar for boys and girls. Respondents were much more likely to have a negative reaction to abuse than to peer experiences. In addition, abuse encounters were much more likely to involve family

members and strangers than peer encounters. They were also more likely to involve coercion. Abuse encounters were also more likely to involve penetration and less likely to involve sexual touching (i.e., physical contact without penetration). Finally, parents' educational attainment was lower among youth who experienced sexual abuse compared to youth who experienced sexual activity with peers, suggesting that victims of sexual abuse were more likely to be from families who have lower socio-economic status.

Importantly, Table 4 also shows that girls responded more negatively to both types of sexual experience. Girls were 3.1 times more likely than boys to have a negative appraisal of abuse (34 vs. 11%) and 4.3 times more likely to have a negative appraisal of peer experiences (13 vs. 3%). These gender differences were also observed in multivariate analyses that included controls for age, relationship, gender of partner, overt force, and intimacy (results not shown). The results suggest that the more negative reaction of girls

**Table 4** Descriptive statistics for incidents of child sexual abuse and peer experiences (%) Ninth Grade Subsample

	Girls		Boys	
	Peers	Abuse	Peers	Abuse
Appraisal measure	13.0	34.0	3.0	10.9
Age at time of incident				
11 or younger	4.1	8.1	6.1	6.9
12–14	63.5	45.4	55.7	36.1
15–17	32.4	46.5	38.1	57.0
Age difference				
5–7 years	–	55.6	–	70.2
8–11 years	–	20.6	–	14.9
12 or more years	–	23.8	–	14.9
Relationship				
Known non-family	92.6	67.8	94.1	64.9
Family member	0.7	5.7	1.3	5.7
Stranger	6.7	26.5	4.5	29.3
Gender of other person				
Male	96.4	99.3	3.7	9.3
Female	3.6	0.7	96.3	90.7
Overt force				
Yes	3.1	11.8	1.8	8.3
No	96.9	88.2	98.2	91.7
Intimacy				
Penetrative sex	26.0	31.4	27.1	68.2
Sexual touching	50.4	37.3	52.2	23.2
Other	23.6	31.3	20.7	8.7
Controls				
College-educated parent	34.9	12.5	39.1	8.2
Nuclear family	61.8	61.3	65.3	68.1
2013 survey	37.7	11.8	36.3	8.0
2008 survey	62.3	27.6	63.7	15.7
1988 survey	–	60.5	–	76.3
<i>N</i> of incidents	3273	1422	2499	376
Clusters (respondents)	1968	1025	1583	273

Percentages for abuse experiences are based on data from ninth grade respondents to all three surveys (1998, 2008, and 2013). Percentages for peer experiences are based on data for ninth grade respondents from the 2008 and 2013 surveys only. Percentages for missing data codes are omitted to conserve space

to abuse reported in the literature is not specific to this criminal offense but reflects their response to sexual experiences more generally.

Table 5 compares the predictors of subjective reactions to peer sexual encounters and incidents of sexual abuse. The results for girls are displayed in the left-hand panel and the results for boys are shown in the right-hand panel. For girls, the effects were similar whether the other party is older (abuse) or of similar age (peers). For both types of sexual encounters,

negative appraisals were more likely when girls are younger, when the other party is a stranger or family member (vs. someone else they know), and when overt force was used.

For boys, the effects were generally similar for abuse and peer experiences. Note however that, due to small sample size, few of these associations met the conventional levels of statistical significance. Regardless of the age of the other person involved, boys were more likely to have a negative appraisal if they were under 12 (vs. 15–17) at the time of the incident, if the other party was a family member, if coercion was used, and if the other person was male. There were some differences related to social relationship but the differences were not statistically significant.

Finally, data on sexual abuse and peer experiences from the ninth grade subsample were combined in order to investigate the effects of the full range of age differences on negative appraisals. This analysis was limited to girls due to an insufficient number of abuse cases involving ninth grade boys. It involved estimating predicted marginal probabilities of a negative appraisal across eight categories of age difference. The results, presented in Fig. 1, show that the reaction of girls to abusive experiences by offenders 5–7 years older were not significantly different from their reaction to peer experiences—the confidence intervals overlap. An increase in negative reactions did not occur until the age differences reached 8–11 years. Negative reactions became increasingly likely when the age difference reached 11 years or more.

## Discussion

Not much is known about the relationship between reactions of victims to sexual abuse and gender, age, and age difference. This research suggests that a consideration of gender differences in sexuality and deviant behavior is critical for understanding these relationships. Unlike prior research, the current study was based on a survey of children. The large sample made it possible to address the heterogeneity of incidents of abuse and to include controls for incident characteristics. The comparison of abuse to peer encounters made it possible to examine the full effects of age difference and to determine whether boys and girls differed in their reactions to sexual experiences generally.

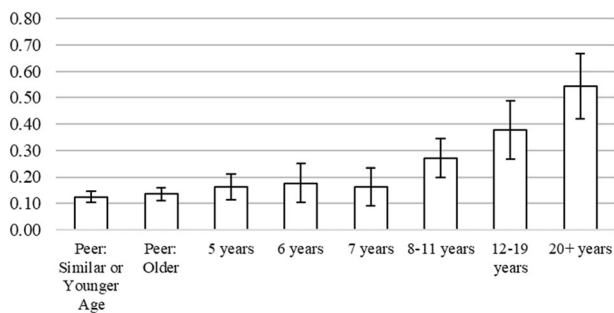
The age patterns observed in the data are consistent with the expectation that reactions to sexual experiences reflect gender differences in sexuality and deviance. The reactions of girls depended on their age at the time of the incident: the younger the girl the more likely she was to have had a negative reaction. The fact that age had similar associations with the girls' reaction to abuse and peer experiences suggests that younger girls are more negative about any kind of sexual activity than older girls. In contrast, younger boys

**Table 5** Logistic regression models for negative appraisals of abuse and peer experiences (Ninth Grade Subsample)

	Girls				Boys			
	Abuse		Peers		Abuse		Peers	
	b	OR	b	OR	b	OR	b	OR
<b>Age at time of incident</b>								
11 or younger	0.70*	2.02	0.89**	2.43	1.57	4.80	0.94*	2.56
12–14	0.38*	1.46	0.42**	1.52	0.00	1.00	0.50	1.64
15–17	reference category	–	reference category	–	reference category	–	reference category	–
<b>Age difference</b>								
5–7 years	reference category	–	–	–	reference category	–	–	–
8–11 years	0.64**	1.89	–	–	–1.56	0.21	–	–
12 or more years	1.49***	4.44	–	–	0.54	1.72	–	–
<b>Relationship</b>								
Known non-family	reference category	–	reference category	–	reference category	–	reference category	–
Family member	1.35***	3.84	2.24***	9.43	0.39	1.48	0.95 <sup>+</sup>	2.59
Stranger	0.54**	1.72	1.10***	3.00	0.83 <sup>+</sup>	2.30	0.01	1.01
Male “partner”	–0.15	0.86	0.01	1.01	2.97**	19.40	1.21*	3.35
Overt force	2.08***	7.97	2.58***	13.21	1.73**	5.66	1.87***	6.47
<b>Intimacy</b>								
Penetrative sex	–0.77***	0.46	–0.36*	0.69	–0.36	0.69	–0.78*	0.46
Sexual touching	–0.27	0.77	–0.30*	0.74	–0.75	0.47	–0.62*	0.54
Other	reference category	–	reference category	–	reference category	–	reference category	–
N of incidents	1422		3273		376		2499	
Clusters (respondents)	1025		1968		273		1583	

Logistic regression coefficients and odds ratios presented. All models control for survey year, parental education, and whether the respondent lived in a nuclear family. Abuse regressions are based on experiences reported by ninth grade respondents to the 1998, 2008, and 2013 surveys. Peer experiences regressions are based on experiences reported by ninth grade respondents to the 2008 and 2013 surveys. The constant and missing data codes are omitted to conserve space. Standard errors adjusted for clustering within respondents

<sup>+</sup> $p < 0.1$ , \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$



**Fig. 1 Predicted Marginal Probabilities of a Negative Appraisal by Age Difference.** <sup>†</sup>Results are based on a pooled sample of abuse and peer experiences incidents reported by girls. The logistic regression equation included controls for survey year, parental education, whether the respondent lived in a nuclear family, age at the time of the incident, respondent’s relationship to the other person, gender of the other person, whether coercion was used, and the intimacy of the experience. The covariates were set to their mean

were no more likely to have a negative reaction to abuse than older boys.

The results for age difference also supported the hypothesis about the effects of sex differences in sexuality

and deviance. Age difference was related to the negative reaction of girls but not boys. Boys responded similarly whether the other person was their age, somewhat older, or even much older. Recall that Rind and Welter (2014) reported a similar gender difference in their study of adults describing their first coitus.

The non-linear relationship between age difference and girls’ reactions to sexual experiences, however, was unexpected. Girls did not react more negatively unless the age difference was at least 8 years. They reacted similarly whether the other party was from 5–7 years older or their own age. Adolescent girls who had sexual encounters with males 5–7 years older—the modal type of sexual abuse—were no more likely to react negatively than girls who had sexual encounters with peers. Perhaps some girls view relationships with somewhat older males as status enhancing. At any rate, their reactions do not reflect conventional adult attitudes or the criminal law. Their willingness to engage in these activities increases their risk of victimization.

The results suggest that the gender difference in reactions to abuse reported in prior research (e.g., Rind and Welter

2014) reflects a gender difference in reactions to sexual experiences more generally. Girls are more likely to report a negative reaction to sexual encounters whether they involve older people or peers. This gender difference has been reported in both the peer encounters literature and the abuse literature but the present study is the first to make an explicit comparison. The fact that the gender difference was just as strong for peer experiences as for abuse suggests that sex differences in sexuality influence reactions. Boys may be more willing to engage in under-age sexual behavior because of a stronger sex drive or because they are more indiscriminant in their response to sexual encounters (e.g., Okami and Shackelford 2001). However, it is reasonable to assume that gender differences in susceptibility to deviant influence also play a role.

Supplementary analysis of who initiated the abusive encounter also suggested that boys are at increased risk of victimization because of their willingness to engage in deviant sexual activity. Boys initiated more than 37% of the abuse encounters and were over five times more likely to initiate abuse encounters than girls.<sup>6</sup> The finding supports the idea that young people are not necessarily passive victims and that their sexual feelings increase their vulnerability. This vulnerability is especially true of boys.

Boys were just as likely as girls to respond negatively to abuse by strangers as they were to abuse by people they knew outside the family. This finding did not support the idea that boys are more indiscriminant in their sexuality and more likely to engage in deviant sexuality. However, the analyses of peer experiences did support this assumption. Girls, but not boys, responded more negatively to peer sexual encounters with strangers than with young people they knew outside their family.

Both boys and girls reacted much more negatively to sexual encounters when the other person was a family member rather than someone else they knew. The finding is consistent with Condy et al.'s (1987) study of the recollections of male inmates and college students of abuse by family members versus non-family members. The pattern was observed regardless of whether the other person was an older relative (e.g., a stepparent or uncle) or a relative of similar age (e.g., a sibling or cousin). The susceptibility of boys to deviant sexuality does not extend to incest.

The hypothesis that boys are more likely to respond negatively to homosexual experiences than heterosexual experiences was supported. Boys were much more likely to have a negative reaction when the other person was a male. These results support the idea that boys react negatively due to the stigma of homosexuality and threats to their

heterosexual identity. Recall evidence that homosexuality carries a greater stigma than lesbianism, that males tend to hold more negative attitudes toward same-sex relationships than females, and that social constructions of masculinity are more rigid than those of femininity (e.g., Hort et al. 1990; Herek 2000).

There was some evidence, however, that girls also responded negatively to abuse when the offender was male. The effect was weaker for girls than for boys and it was only observed with the adjective measure. Perhaps girls were more negative about male offenders than female offenders because the abuse was more likely to occur in the context of casual sex and less likely to include an emotional attachment (Nelson and Oliver 1998).

The study of subjective reactions is relevant to crime prevention. It is reasonable to assume that young people who do not react negatively to these events are more easily manipulated, and therefore at greater risk of victimization and repeat victimization. They may also be less likely to report the offense to authorities and less likely to serve as witnesses when their cooperation is needed. Boys are more easily influenced than girls, but adolescent girls are susceptible to seduction by young men. The adolescent brain—oriented to low self-control and strong emotional response—increases vulnerability (e.g., Giedd 2015). Situational crime prevention should therefore focus on victims as well as offenders. It is often easier to change the behavior of potential victims than to change the behavior of offenders (Clarke 1995).

Finally, research on subjective reactions to abuse contributes to the understanding of the mental health consequences of these incidents. As discussed earlier, the detrimental effects of abuse on mental health are at least partially mediated by the victims' subjective response to the experience (e.g., Finkelhor 1987). The results of this study can therefore be used to identify the types of sexual experiences that are most harmful to victims. The findings suggest that sexual abuse committed by male family members against young children is the most traumatic. Adolescent boys abused by women and adolescent girls abused by older boys should be less traumatic when the offenders are people they know outside their families. The greater the harm, the greater the need for attention from practitioners.

## Conclusion

A child's subjective reaction to sexual abuse has important implications for future victimization and for mental health. Research on subjective reactions to sexual abuse, however, has been limited. The current study used survey data from a large sample of children to examine subjective reactions to

<sup>6</sup> It is possible that there was some pressure or coercion from the offender when the respondents said they initiated it.

abuse and to sexual experiences with peers. The evidence suggests that sex differences in sexuality and deviance lead boys and girls to react differently to sexual abuse. Girls react more negatively when they are younger and when the offender is much older. In contrast, boys are more indiscriminant in their reactions to sexual encounters and more tolerant of sexual behavior that violates criminal law and social norms. They are less likely to have negative reactions to sexual encounters than girls and their reactions do not depend on their age or the age of the other party. Girls are at greater risk of abuse because most offenders are heterosexual males. However, when boys are targeted by older persons, especially women, they are more susceptible to influence.

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**Data Sharing and Declaration** Data from each survey are freely available from the Finnish Social Science Data Archive ([www.fsd.uta.fi](http://www.fsd.uta.fi)). The study numbers for the surveys are as follows: FSD2406 (1988), FSD2416 (2008), and FSD2943 (2013).

## Compliance with Ethical Standards

**Conflict of Interest** The authors declare that they have no conflict of interest.

**Ethical Approval** The study is based on secondary data collected in another country. The work is original and is not submitted elsewhere. Ethical guidelines were followed.

**Informed Consent** Informed consent was obtained from all individual participants included in the study. Students were given opportunity to end survey at any time.

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