Internet-Initiated Sexual Abuse: Adolescent Victims' Reports About *On*- and *Off*-Line Sexual Activities

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SUMMARY

The purpose of the present study was to investigate how adolescent girls, who had been sexually (*on*- and *off*-line) deceived and abused by an Internet hebephile, reported about these acts. As we had access to documentation of 68 girls' conversations (i.e. chat logs) and involvement with the perpetrator, we were able to gauge what the victims reported during the police interview against this detailed documentation. In contrast with findings from previous research, the majority of victims reported about the *off*-line activities (real-life meetings) with the perpetrator. However, the victims omitted and/or denied more of the *on*-line activities, specifically the more severe sexual *on*-line acts (sending nude photos and participating in sexual web shows). There is probably a gap between what the victims reported and what they presumably remembered about the *on*-line activities. Factors that might have affected the victims' pattern of reports are discussed. Copyright © 2008 John Wiley & Sons, Ltd.

Since the mid 1990s, use of the Internet has come to play a growing role in sex crimes committed against children and youth. Using the Internet reduces the risk of offenders being identified, thus giving them the opportunity to remain anonymous and create false identities (Stanley, 2001). The Internet has become an important tool for psychologically manipulating children into sexual exploitation (i.e. providing children with attention, affection, kindness, gifts and money until their inhibitions are lowered). The offender slowly introduces the sexual invitations by degrees, so that the child is gradually desensitized, after which time the sexual approaches escalate. The grooming procedure is extremely effective in gaining children's and adolescents' confidence and trust (Chase & Statham, 2005). Children can be seriously mistreated, for example, by being manipulated to perform sexual acts in front of a web camera—acts that are later spread on the Internet. They can also be sexually assaulted during a real-life encounter.

Young people (12–24 years) are the largest population using the Internet for communication purposes (Pew Internet Project, 2001). According to an American study among 1501 children (10–17 years) who use the Internet, one of five reported being exposed to unwanted sexual solicitations on the Internet. Furthermore, one of seven

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reported that the offender attempted to contact them on the telephone or by postal mail (e.g. Finkelhor, Mitchell, & Wolak, 2000).

Wolak, Finkelhor and Mitchell (2004) conducted an American survey, between October 2001 and July 2002, among a sample of 2574 law enforcement agencies. The sample concerned 129 sexual offences against juvenile victims that originated with *on*-line encounters. The majority of the victims were girls (75%), between 13 and 15 years of age (76%), who met the adult offender in Internet chat-rooms. Most offenders took time to develop a relationship with the victim, including online communication, telephone interactions and offering gifts or money to the children. Most offenders did not deceive the children with regard to their own age or sexual interests; misrepresentations mainly involved promises of love and romance. Thus, the victims usually knew that the offenders were older adults interested in sexual relationships. Most of the children agreed to meet the adults and engaged in sexual activities on more than one occasion. Half of the children described being in love with or having strong feelings for the offender. In a few cases, however, the offenders posed as friends and then assaulted the victims, or deceived victims by saying that they worked for modelling agencies.

Research has also shown that children with particular characteristics seem to be especially vulnerable to becoming victims of sexual abuse both in conventional abuse cases and on the Internet: children in the care of the state, children with prior maltreatment experiences, emotionally immature children, children with social difficulties, love- or attention-deprived children, children with strong respect for adults and children with low self-esteem (Stanley, 2001).

Furthermore, research indicates that children often do not report sexual solicitations made on the Internet, even when the offender attempts to contact them in real-life. Only one-quarter of children who had experienced a sexual approach reported this to a parent and only 10% reported the solicitation to an authority (e.g. the police or a teacher) (Finkelhor et al., 2000).

RESEARCH ON CHILDREN'S REPORTS ABOUT SEXUAL ABUSE

A number of *scientific case studies* (as termed by Bidrose & Goodman, 2000) have investigated how children report about sexual abuse experiences during formal interviews, when the researchers have access to verification of the abuse (e.g. film, photographs or computer files). Documentations of abuse are very important in that they highlight the *ground truth* (i.e. what actually has taken place) and allow measurement of children's accuracy and completeness, number of denials and unsupported allegations (Goodman, 2006). Such scientific case studies have shown that children often are unwilling to talk about sexual abuse experiences. Sexually abused children tend to give fragmentary reports, omit, belittle and even deny their abuse experiences (Leander, Christianson, & Granhag, 2007; Leander, Granhag, & Christianson, 2005; Sjöberg & Lindblad, 2002; Svedin & Back, 2003). Interestingly, research has shown that children generally are capable of remembering and reporting about *non*-sexual stressful experiences (Bahrick, Parker, & Fivush, 1998; Goodman, Hirshman, Hepps, & Rudy, 1991; Howe, Courage, & Petersen, 1996; Peterson & Bell, 1996; Peterson & Whalen, 2001), and that when children do report about sexual abuse they are often correct in their reports (Bidrose and Goodman, 2000; Leander et al., 2005).

Furthermore, a large number of disclosure studies have been conducted (see Pipe, Lamb, Orbach, & Cederborg, 2007 for an update on current research). Disclosure studies can be conducted in one of two ways: by interviewing a large sample of adults who claim to have been abused as children (i.e. retrospective studies). These surveys address questions such as how many adults with a history of CSA have disclosed the abuse, and when, to whom and why they disclosed (e.g. Arata, 1998; Crisma, Bascelli, Paci, & Romito, 2004; Lamb & Edgar-Smith, 1994; Smith, Letourneau, Saunders, Kilpatrick, Resnick, & Best, 2000). The second way is by interviewing children or adolescents who are being treated or investigated for CSA about their disclosure (or non-disclosure) (e.g. DiPietro, Runyan, & Fredrickson, 1997; Goodman-Brown, Edelstein, Goodman, Jones, & Gordon, 2003; DeVoe & Faller, 1999; Gries, Goh, & Cavanaugh, 1996; Keary & Fitzpatrick, 1994; Sauzier, 1989; Sorensen & Snow, 1991; Lawson & Chaffin, 1992). In a comprehensive review of the literature on childhood disclosure about sexual abuse, London, Bruck, Ceci, and Shuman (2005; 2007) reported rather low levels of disclosure rates (31–45%) in the retrospective studies reviewed. With a few exceptions (e.g. Fergusson, Lyskey, & Horwood, 1996), retrospective disclosure studies indicate that the majority of adults had not disclosed CSA experiences during childhood. This finding is evident independent of differences in method, definition of abuse and sample characteristics (London et al., 2005, 2007). However, when investigating disclosure rates in child clinical samples, and especially in cases where there are strong evidence (e.g. medical) that abuse has occurred, London et al., (2005; 2007) found that most of the studies indicated that children actually do disclose abuse. Low disclosure rates among the child clinic samples were associated with samples where the diagnoses of abuse were uncertain. Furthermore, London and colleagues reported that only a small percentage of abused children denied or recanted abuse allegations during formal interviews.

THE PRESENT STUDY

The background of the present study is as follows: A Swedish man (age 29) had developed a false identity on the Internet and contacted a large number of girls[1] in order to lure them into conducting *on-* and *off*-line sexual acts. He pretended to be a 25-year-old woman called Alexandra who worked for a model/escort service. The contact often started at a public chat site for young people, where Alexandra got the victims' attention, often by promising a large amount of money in exchange for model and escort services. The contact soon transitioned into a private *on*-line contact. The perpetrator's modus operandi was similar for all victims. He made the victims believe that the clients (whom they were supposed to meet) were rich, young men, with whom the victims would have a glamorous and luxurious encounter. In reality he, himself, was the client. Among other acts, he encouraged the victims to send nude photos and to participate in web shows while performing sexual acts (with the excuse that it was in the potential clients' interest to see the victims before they met). The perpetrator's final goal was to arrange a meeting between him and the victim, a meeting during which sexual activities were to take place.

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[1]The girls will hereafter be described as *victims*, even girls older than the age of the consent (15 years in Sweden), as the perpetrator clearly manipulated and deceived those girls as well. Generally, we used the term *sexual involvement/activities* instead of *sexual abuse*, as we wanted to facilitate reading by using the same terms for all acts (e.g. for acts such as sending the perpetrator personal information).

The authors were given access to police interviews with 68 victims (some victims had met the man *off*-line; other victims had exclusively been involved in *on*-line sexual activities), and to detailed documentation of the communication between each victim and the perpetrator (the so-called *chat logs,* received from the Internet sites on which the communication between the perpetrator and victims occurred). Thus, we had full insight into the entire Internet conversation between the offender and the victims. The purpose of the present study was to investigate how the victims reported (in police interviews) about the acts they had been involved in (e.g. providing the perpetrator with personal information, sending photographs, participating in sexual web shows, discussing a meeting with a client and meeting the man). Specifically, our goal was to determine whether the victims reported, omitted or denied the acts that they had been involved in. As this is, to our knowledge, the first attempt to address these questions using Internet-based documentation, the present study is explorative in nature. The study had two main predictions. First, in line with findings from previous research (e.g. Leander et al., 2005, 2007; Sjöberg & Lindblad, 2002; Svedin & Back, 2003), it was predicted that there would be a gap between what the victims presumably remember about the sexual activities and what they report in the investigative interview (i.e. that they would remember more than they report). Second, and also in line with previous research (e.g. Svedin & Back, 2003), it was predicted that the victims would be more hesitant to report about the more severe sexual acts than about the less severe acts (e.g. due to factors such as shame and guilt).

METHOD

Material

The data for the present study were retrieved from the Criminal Investigation Department in Malmö, Sweden. The material included transcribed police interviews (from audio recorded interviews) with a large number of victims who had been in contact with the offender. The material also included chat logs (originally received from the Internet sites on which the communication between the perpetrator and victims occurred) documenting the entire communication between the victim and the perpetrator from the first encounter to the end of contact. In addition to documenting the entire conversation, the chat logs also reveal whether the victim had sent photographs (the photographs were saved on the perpetrator's computer and documented as a part of the investigation) or participated in web shows (the acts that the victims conducted during the web shows are also documented in detail on the chat logs, as the perpetrator told the victims what to do). As the chat logs (the verification material) were essential for conducting this study, we excluded the police interviews with victims for whom no chat log existed (12 victims), leaving us with 68 victims. The victims ranged in age from 11 to 19 years ($M = 15.13$ years, $SD = 1.64$) at the time of the initial contact with the perpetrator, and from 12 to 19 years ($M = 16.12$, $SD = 1.64$) at the time of the police interview. The time interval between date of first contact and date of last contact between the victim and the perpetrator ranged from 1 week to 12 months, and the time interval between date of last contact with the perpetrator and date of police interview varied from 1 to 17 months ($M = 8.6$ months). Three victims contacted the police before the crime was exposed, about ten victims contacted the media after the crime was exposed; the remaining victims were traced from the chat logs. All personal information (e.g. surname, social security number, address) was handled

confidentially and measures have been taken to ensure that the individual victims cannot be identified from the manuscript. The number of interviews with the victims varied from one to two, and the interviews (with a few exceptions) were transcribed into dialog form. Two female police officers (interviewed 24 and 7 victims, respectively) and two male police officers (interviewed 23 and 6 victims, respectively) conducted the majority of the interviews. Three other police officers (one male and two females) interviewed a total of eight victims. In cases of repeated interviews, the same police officers conducted the interviews, except for one case in which the prosecutor held a subsequent interview. Generally, the interviews contained a mixture of open-ended and specific questions. There was also a rather large amount of suggestive questions referring to documentation that the interviewers had access to (e.g. suggestive questions about photographs depicting the victim). No interview manual was used. The perpetrator was sentenced to ten years in prison and ordered to, thereafter, leave Sweden for the remainder of his life.

The coding procedure

A comprehensive coding scheme was developed after careful reading of the investigation material. Consequently, the coding scheme emerged from (a) an understanding of the material and (b) the research questions we wished to address. A second coder was then instructed and trained in how to use the coding scheme (e.g. she received feedback after coding five interviews, and disagreements were discussed and resolved). Finally, the trained coder coded the entire material (inter-rater reliability is presented below). The material was coded for one victim at a time. In the first part of the coding scheme, demographical and other information was coded (e.g. age of the victim, the duration of contact between the victim and the perpetrator, time interval between last contact and police interviews, number of police interviews).

In the second phase of the coding procedure, the acts that the victim had been involved in were coded, and to this end the chat logs were used. The second phase of the coding scheme comprises the following categories: (1) providing the perpetrator with personal information; (2) sending facial photographs; (3) providing the perpetrator with information about sexual preferences; (4) discussing the possibility of meeting with a client and having sex; (5) sending nude photographs; (6) participating in web shows (stripping); (7) participating in web shows (explicit sexual acts); (8) *off*-line meeting without sexual activities; (9) *off*-line meeting including sexual activities; (10) *off*-line meetings on several occasions (see Appendix). The first seven categories concern acts that occurred *on*-line and Category 8–10 concern *off*-line contact with the man (i.e. real-life encounters). As the meeting was arranged and planned in detail during the conversation on the chat logs, we were able to register when and where it took place. After the meeting had (or had not) taken place, the victim discussed the outcome, *on*-line, with Alexandra (i.e. the victims still did not know that Alexandra actually was the man they met). Consequently, we had rather good insight into what had happened during the *off*-line meetings.

The third phase of the coding scheme comprised coding the police interviews with the victims. The specific focus was on how the victims reported about the acts in which they had been involved. Every act (i.e. the categories mentioned above) for each of the victims was coded on the basis of how they reported about it during the police interview (some victims were involved in few, others in several acts). Each act could be coded as either: (a) reporting about the act; (b) omitting the act; (c) omitting some part of the act; (d) initially denying the act; (e) entire denial of the act and (f) the act was not discussed during the

police interviews (see Appendix). The category 'act was not discussed during the police interview' was used when an act was not of interest to the interviewer, thus, the victim did not omit or deny it (e.g. the interviewer mainly focused the interview on what occurred during a meeting with the man and did not discuss whether the victim had sent the man personal information). 'Denial' was coded when the interviewer asked about an act that (we know) had occurred, but the victim claimed that it had not occurred. 'Omitting' was coded when the victim had the opportunity to report about an act, but failed to do so. If a victim first omitted a certain act, in response to an open-ended question (e.g. 'tell me what happen during the chat conversation?'), and later denied the same act when asked a specific question (e.g. 'did you send any photographs?'), it was coded as a denial. However, the interviewers often used specific questions, and thus, *denials* commonly occurred without an initial *omission* of the act. We decided to score both denials and omissions because this made the victims' answer strategies more transparent and because we wanted to illuminate the presence of both omissions and denials.

Inter-rater reliability

To assess the reliability of the coding procedure, 17 of the 63 interviews (those not used for training) were randomly selected for coding by the second independent coder (one coder coded all 68 interviews). The inter-rater reliability for coding of the chat logs (the acts) was 0.94, and for the police interviews (the victims' reporting) it was 0.84. Disagreements were resolved through discussion between the two coders.

RESULTS

Overview of the acts the victims were involved in

As can be seen from Table 1, the majority of the victims provided Alexandra with personal information, sent facial photographs and discussed a meeting with a client. A large number of the victims also told Alexandra about their sexual preferences. Less than half of the victims sent nude photos, and about 25% of the victims participated in web shows (stripping or masturbating).

Table 1. Number of victims who participated in the different acts, percentages in brackets (the same victim could participate in several of the acts), in sum there were 68 victims

Type of act	*N*
1. Personal info	64 (94%)
2. Facial photographs	57 (84%)
3. Sexual preferences	44 (65%)
4. Discussing meeting/sex	57 (84%)
5. Nude photos	27 (40%)
6. Web show strip	13 (19%)
7. Web show sexual	19 (28%)
8. Meeting no sex	5 (7%)
9. Meeting with sex	27 (40%)
12. Several meetings	16 (23%)

Furthermore, 32 (47%) victims actually met with the man. Of these, five were not involved in sexual activities, and 27 were involved in sexual acts. Of the victims who met the man, 16 did so on several occasions.

The victims' reporting about the acts

Off-line activities
The absolute majority (81%) of the victims who had been involved in *off*-line sexual activities with the perpetrator reported about this, three victims initially denied the act but later reported about it, one victim omitted some of the information and one victim entirely denied the meeting and sexual acts. In addition, all victims who had met with the man without sexual activities, and all victims who had met the man on several occasions, reported about this (see Table 2). Consequently, these results do not support our predictions that there would be a gap between what the victims reported and what they presumably remember, and that they would be more hesitant to report about the more severe sexual acts.

On-line activities
The highest figures of reporting were found for 'Personal information' and 'Sending facial photographs'. There were also rather high figures of reporting for the categories 'Discussing meeting/sex', 'Sexual preferences' and 'Web show strip'. However, the victims were more reluctant to report about the categories 'Web shows with sexual acts' and 'Sending nude photos'. When we collapsed the first four categories (the less severe *on*-line activities), the victims reported 72% and omitted/denied 28% of the acts. When we collapsed the categories 'Nude photos', 'Web show strip' and 'Web show sexual' (the more severe *on*-line activities), the victims reported 49% and omitted/denied 51% of the activities (see Table 2). Findings regarding the *on*-line acts support our first prediction that there would be a gap between what the victims report and what they presumably remember, and our second prediction that the victims would be more hesitant to report about the more severe sexual *on*-line activities.

To further address our predictions, a series of Chi-square analyses for goodness of fit were conducted to compare the frequencies of *reports* with the frequencies of *omissions/denials* (omission some, omission entirely, initial denial and entire denial were collapsed into one variable) for all categories, respectively. As seen in Table 3, there were

Table 2. Frequencies (of all victims who participated in the respective acts and when the acts were discussed during the interview) who reported, omitted some, omitted entire, initial denial and entirely denied the acts (percentages in brackets)

Type of act	Reported	Omitted some	Omitted entirely	Denial initial	Denial entirely
1. Personal info (*n* = 52)	39 (75)	6 (11)	1 (2)	2 (4)	4 (8)
2. Photographs (*n* = 43)	32 (74)	1 (2)	1 (2)	5 (12)	4 (9)
3. Sexual preferences (*n* = 16)	10 (60)	1 (7)	1 (7)	2 (13)	2 (13)
4. Discussing meeting/sex (*n* = 55)	38 (69)	2 (4)	2 (4)	6 (11)	7 (13)
5. Nude photos (*n* = 23)	10 (43)	4 (17)	—	4 (17)	5 (22)
6. Web show strip (*n* = 12)	8 (67)	1 (8)	1 (8)	—	2 (17)
7. Web show sexual (*n* = 18)	8 (44)	4 (22)	1 (6)	1 (6)	4 (22)
8. Meeting no sex (*n* = 5)	5 (100)	—	—	—	—
9. Meeting including sex (*n* = 27)	22 (81)	1(4)	—	3 (11)	1 (4)
12. Several meetings (*n* = 16)	16 (100)	—	—	—	—

Table 3. Comparisons between the victims who reported the acts and the victims who omitted/
denied the acts (for the categories with an expected frequency greater than 5)

Type of act	Report	Omit/deny	χ^2	*p*-value
1. Personal info	39	13	13.00	.000[***]
2. Facial photographs	32	11	10.26	.001[***]
3. Sexual preferences	10	6	.60	.439
4. Discussing meeting/sex	38	17	8.02	.005[**]
5. Nude photos	10	13	.39	.532
6. Web show strip	8	4	1.33	.248
7. Web show sexual	8	10	.22	.637
8. Meeting no sex	5	0	—	—
9. Meeting including sex	22	5	10.70	.001[***]
12. Several meetings	16	0	—	—

**p < .01; ***p < .001.

significantly more reports than omissions/denials regarding the categories 'Personal information', 'Facial photographs' and 'Discussing meeting/sex'. For the categories 'Sexual preferences', 'Nude photos', 'Web show strip' and 'Web show sexual', there were no significant differences. Regarding the *off*-line activities, it was only possible to conduct the analyses for the category 'Meeting with the man including sexual activities', and the result proved to be significant. Thus, there were significantly more reports for this category than omissions/denials (see Table 3).

It is important to consider that acts coded as 'omitting *some*' information imply that the victim actually *reported* some of the information about that particular act. Consequently, we conducted the Chi-square analyses for goodness of fit for all categories, but this time we compared the frequencies of 'reports' and 'omission some' (collapsed into one *report* variable) with the frequencies of 'omission entirely', 'initial denial' and 'entirely denial' (collapsed into an *omission/denial* variable). The only difference between results from this analysis and the previous analysis (presented in Table 3) was that, for the category 'discussing sex', there was an even stronger significant effect (.001) when we collapsed 'report' and 'omitting some' into one variable.

We also conducted a Chi-square test of independence for the *on*-line categories (collapsed) and the *off*-line acts (collapsed) and how the victims involved in these acts reported about them. The *reporting* of the acts was a dichotomous variable that could be coded as either 'report' or 'omit/deny' ('omission entire', 'omission some', 'entire denial', 'initial denial' were collapsed into one category). If a victim omitted or denied any of, either the *on*-line or the *off*-line, acts during the police interview, she was included in the 'omitted/denied' category for the '*On*-line activities' or '*Off*-line activities'.

The test showed a significant difference between the *on*- and *off*-line categories (Pearson $\chi^2 = 13.08$, $p = .001$, df = 1), indicating that victims involved in real-life meetings with the man were more willing to report about this than were victims involved in *on*-line sexual activities (see Table 4). Additionally, a Chi-square test of independence regarding the victims' reporting was conducted when the '*reporting*' variable also included 'omission some' information. The result was still significant, although somewhat weakened (Pearson $\chi^2 = 6.06$, $p = .014$, df = 1).

Table 4. Frequencies of victims who were involved in the *on-* or *off*-line activities who reported or omitted/denied ('omitting some' information were included in the 'omitted/denied variable') the acts

	Type of acts	
Reporting	*On*-line activities	*Off*-line activities
Reported	15	27
Omitted/denied	21	5

To investigate to what extent the victims who were involved in both *off-* and *on*-line activities reported about the *on*-line activities, compared to the victims who had only been involved in the *on*-line activities, a Chi-square test of independence was conducted. No significant difference was found (Pearson $\chi^2 = .008$, $p = .927$, df $= 1$). The victims involved in both *off-* and *on*-line activities had a reporting pattern (regarding the *on*-line activities) similar to that of the victims only involved in *on*-line activities.

Effects of age and time interval

In order to investigate whether the victims' age (at the time of the police interview), the time interval between first and last contact with the perpetrator, and the time interval between last contact with the perpetrator and the police interview affected the victims' reporting, a logistic regression analysis was conducted. Reporting ('report' or 'omit/deny') served as the dichotomous-dependent variable, and the victims' age (in years), contact interval (in weeks) and the interview interval (in months) were the predictor variables. No significant result was found, ($\chi^2 = 6.97$, $p = .54$, df $= 8$). Neither age, contact interval, nor interview interval were found to affect the reporting (see Table 5). We also conducted a Chi-square test of independence to investigate whether the four interviewers conducting the majority of the interviews (24, 7, 23 and 6 interviews, respectively) differed regarding how the victims reported about the acts (report vs. omitted/denied the acts). No significant result was found (Pearson $\chi^2 = 1.995$, $p = .573$, df $= 3$). Consequently, the interviewers did not seem to differ regarding the victims' reports.

To further investigate potential age differences, the age variable was collapsed into a dichotomous categorical variable with two subgroups, victims between 12 and 14, and victims between 15 and 19 (the age of consent is 15 years in Sweden). In order to investigate whether there were any differences between victims younger than 15 years and victims older than 15 years regarding their reporting about the *on-* and *off*-line activities in a Chi-square test of independence was conducted. However, no significant difference was found (Pearson $\chi^2 = .854$, $p = .355$, df $= 1$) (see Table 6).

Table 5. Effects of age, time between first and last contact with the perpetrator (contact interval), and time between last contact and first interview (interview interval) on the victims' reporting about the acts

Predictor variables	B	SE	Wald	Sig.	Exp (B)
Age at interview	.267	.165	2.629	.105	1.306
Contact interval	.019	.025	.595	.441	1.020
Interview interval	−.044	.073	.368	.544	.957

Table 6. Frequencies of victims younger or older than 15 years of age who were involved in *on-* or *off*-line activities and how they reported about the acts

Victims age	*On*-line activities	*Off*-line activities	Report about the acts	Omit/deny the acts
12–14 years old	8	4	6	6
15–19 years old	28	28	36	20

DISCUSSION

The purpose of the present study was to investigate how adolescent victims, who had been manipulated, deceived and/or forced into conducting sexual acts (*on-* and *off*-line) by an Internet hebephile, reported about the acts. Specifically, we wished to determine to what extent they reported, omitted and denied the different acts.

The reporting about *off*-line activities

In contrast to our predictions and findings from previous research, results from the present study showed that the majority of the girls reported about the real-life meetings with the man and the sexual activities that had occurred. There may be several different reasons for this finding: (1) When the perpetrator was exposed by the police, there was a massive media report about his crimes. The media appropriately described the perpetrator very negatively and the victims were depicted as victims. In addition, the victims realized that there were several other victims who had been deceived and abused by the same perpetrator. This probably reduced the girls' feelings of guilt, which may have facilitated reporting. (2) The police had access to material verifying what had occurred. This may have obliged the victims to report about it (though previous research has shown a high level of omissions and denials among children even in cases where there is evidence that abuse has occurred). (3) The victims in the present study were teenagers, which may have affected their reporting (i.e. they may not be as limited by cognitive factors as are younger children and may have a better understanding of what had happened). (4) It is also important to consider that the victims in the present study probably represent a rather special sample of teenage girls. Previous research suggests that adolescents with particular personal characteristics seem to be extra vulnerable to sexual victimization on the Internet (e.g. children with a high degree of conflict with their parents, children with depression, social difficulties, feelings of loneliness, children with prior maltreatment experiences, emotionally immature children, love- or attention-deprived children) (Stanley, 2001; Wolak et al., 2004). This might plausibly affect their reporting. In line with this, it may also be the case that the victims who were willing to meet with the man were also more extraverted generally and, thus, more willing to disclose. However, it should be noted that this is only speculation, as we neither measured extraversion nor the victims' vulnerability. (5) Many of the victims in the present study reported having had voluntary sex with the man, and they also sent the perpetrator nude photographs and participated in web shows without coercion (even if persuasion was involved); this might be a factor contributing to the reporting pattern. Furthermore, it is plausible that today's culture among Swedish teenagers regarding their behaviour on the Internet (e.g. to show private photographs), as well as the enormous access to pornographic

material on the Internet, may normalize sexual behaviour on the Internet. Therefore, the girls in this study may not have regarded the activities as so extraordinary.

It should be noted that although the victims reported about the *off*-line meetings with the man, they may have omitted specific *details* that we were not able to control for.

The reporting about *on*-line activities

Regarding the *on*-line activities, we found a gap between what the victims reported about them and what they presumably remembered. This finding is in accordance with our first prediction and findings from previous research (on verbal and physical sexual abuse), showing that children are reluctant to report about sexual details in police interviews (Leander et al., 2005, 2007; Sjöberg & Lindblad, 2002; Svedin & Back, 2003). In line with our second prediction, the victims tended to be more willing to report about the less severe *on*-line activities (e.g. that they had provided the man—who they thought was a woman— with personal information and sent him facial photographs) than they were to report the more severe acts (e.g. that they had sent nude photos and participated in sexual web shows). Based on research on children's memory for stressful events (e.g. Goodman et al., 1991; Howe et al., 1996), it is reasonable to believe that the victims also remembered the severe sexual acts (as well as the less severe acts). A commonly mentioned explanation, which may apply to the present results, is that feelings of embarrassment complicated the victims' reporting (e.g. Leander et al., 2005; Svedin & Back, 2003). It is probably more embarrassing to report having sent nude photos and participated in web shows than to having sent facial photographs or revealed one's surname and telephone number.

During the interviews, it was common for the interviewers to ask suggestive questions (about something the interviewer knew had happened). If the victim denied, the interviewer usually made additional suggestive statements, and if the victim continued to deny, the interviewer often informed her about the documentation and asked whether she wanted to see it (e.g. a nude photo). Consequently, many victims *initially* denied acts that they had been involved in, but when the interviewer made clear that he or she had the documentation, they usually admitted to the act. However, there are still 29 *entire denials* for the *on*-line acts, despite access to conflicting evidence. Some victims denied acts such as sending nude photos and participating in sexual web shows even when they were confronted with evidence (responding with comments such as 'that's not me, it has to be a look-alike'). Some victims also refused to look at photographs or movie clips. This behaviour has also been found in previous research, where children denied acts even when they were confronted with evidence (Leander et al., 2007; Svedin & Back, 2003). In the present study, it is likely that if the interviewers had not had access to the documentation, there would have been an even higher degree of denials.

We also investigated the occurrence of *omissions*. In 20 cases, the victims omitted *some* information from the acts. Awareness of the documentation may have obliged the victims to report that certain acts had occurred, however, they may have felt too ashamed to tell the interviewer about all details (especially the most critical details). Furthermore, the victims may have forgotten some of the information (especially peripheral information), thus unintentionally omitting it.

It should also be noted that, as far as the authors could determine, the victims gave no false reports about *on*- or *off*-line acts (i.e. acts that could not be supported by the verification material).

Age and time interval

We did not find any age differences regarding the victims reporting about the *on-* and *off*-line activities. Victims younger than 15 years of age had about the same reporting pattern as the older victims. As persons older than 15 years have the formal right to be involved in sexual relationships, and are generally more physically and psychologically mature compared to younger teenagers, one could argue that older victims should be more prone to report about the acts in police interviews than younger victims. On the other hand, it is important to notice that all of the girls in the study are adolescents, well past the age when developmental factors (e.g. cognitive factors) may have the greatest influence on reporting. Furthermore, emotional and social factors may have affected their reporting in similar ways.

There was no effect of the time interval between the contact with the perpetrator and the police interview on the reporting pattern. This lack of effect was probably due to our rather lenient coding of the victims' memory performance, and a different picture might have emerged if we had more strictly coded their memory for specific (central and peripheral) details from the acts. Here, we have described their overall memory of whether or not a certain act occurred. In addition, the time of contact with the perpetrator did not affect the victims' reporting.

CONCLUSIONS

Results from the present study revealed that there were few omissions and denials regarding the victims' reports about real-life meetings with the man and the sexual activities that had occurred, a finding not in line with our predictions. It is likely that the massive media reports, which described the perpetrator very negatively and appropriately depicted the girls as victims, facilitated the victims' reporting. In addition, factors such as personal characteristics among the victims, the fact that the perpetrator was not close to the victims, and access to verification material during the police interviews may have affected the reporting pattern.

Furthermore, results showed that the victims were less willing to report about the *on*-line activities. Specifically, they tended to omit and deny the more severe sexual *on*-line activities (that they had sent nude photos and participated in sexual web shows), but were more willing to report the less severe activities (e.g. that they had provided the man with personal information and sent him facial photographs). One plausible explanation for this is that the victims experienced feelings of shame and guilt and thus avoided the most critical acts. It is certainly more embarrassing to report about nude photos or participation in sexual web shows than to reveal sending facial photographs or one's surname and telephone number. The fact that the victims were generally more prone to report about the *off*-line activities compared to some of the *on*-line activities is noteworthy. Speculatively, the victims who met with the man may have been more extroverted and therefore also more willing to report about these acts. Furthermore, meeting with the perpetrator may be regarded as a more significant event than the *on*-line acts, and therefore the victims may have felt more obliged to report about the *off*-line acts and regarded the *on*-line acts as easier to conceal.

It should be noted that this is a special case of child sexual abuse. The most common sexual abuse cases involve long-term, repeated abuse perpetrated by someone close to the

child (Svedin & Bank, 2002). Thus, caution should be used in generalizing these results to sexually abused children in general. However, the present results constitute a step forward in understanding children's memories and reports about sexual abuse. The study shows that reporting patterns may differ as a function of the type of abuse perpetrated, and that individual factors (e.g. personal characteristics) must be considered. This particular type of Internet-initiated sexual abuse deserves and requires further in-depth investigation.

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APPENDIX 1

Coding of the acts that the victims had been involved in:

(1) *Providing the perpetrator with personal information* (the perpetrator usually asked the victims for personal information such as telephone number, address, surname).

(2) *Sending facial photographs to the perpetrator* (i.e. photographs showing the face or body with clothes on).

(3) *Providing the perpetrator with information about sexual preferences* (the perpetrator often asked the victims a series of questions regarding what type of sexual acts they like to perform).

(4) *Discussing the possibility of meeting with a client and having sex.*

(5) *Sending nude photographs* (photographs showing the victim naked or in her under-
    wear).
(6) *Participating in web shows (stripping)* (i.e. the victim takes her clothes off in front of
    a web cam).
(7) *Participating in web shows (explicit sexual acts)* (i.e. the victim performs sexual acts,
    such as masturbating, in front of a web cam).
(8) *Off-line meeting occurs without having sex* (i.e. the victim meets a client who
    actually, without the victim's knowledge, is the perpetrator himself).
(9) *Off-line meeting occurs including sexual activities* (i.e. the victim meets a client who
    actually, without the victim's knowledge, is the perpetrator himself.
(10) *Off-line meetings occur on several occasions.*

Coding of the victims' reporting about the acts:

(a) *Report* (i.e. the victim reports about the particular act, both on her own initiative and
    when asked questions by the interviewer).
(b) *Omission some* (i.e. the victim omits some information about a particular act, when
    spontaneously reporting about what had happened).
(c) *Omission entire* (i.e. the victim omits all information about a particular act, when
    spontaneously reporting about what had happened).
(d) *Initial denial* (i.e. when asked by the interviewer, the victim first denies that a particular
    act has occurred, but later admits that it actually has occurred).
(e) *Entire denial* (i.e. when asked by the interviewer, the victim denies that a particular act
    has occurred, and does so during the entire interview).
(f) *The act was not of interest and not discussed during interview* (i.e. the particular act is
    not a subject of concern during the interview, for example, when the interviewer
    mainly focuses the interview on a meeting with the perpetrator and the category
    'personal information' is not of interest).