

Prevalence of child sexual abuse among adolescents in Geneva: results of a cross sectional survey

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Abstract

Objective—To measure the cumulative prevalence of child sexual abuse in a representative sample of the adolescent population of Geneva.

Design—Cross sectional survey with an anonymous self administered questionnaire centred on a factual description of sexual activities.

Setting—68 classes (17 schools) randomly selected from the 201 ninth grade classes of the public school system in Geneva.

Subjects—1193 adolescents aged 13-17 years, of whom 1116 (93.5%; 568 girls, 548 boys) consented to the study and returned completed questionnaires.

Results—192 (33.8%) girls and 60 (10.9%) boys reported having experienced at least one sexually abusive event. The prevalence of abuse involving physical contact was 20.4% (116 cases) among girls and 3.3% (18) among boys. The prevalence of abuse involving some form of penetration was 5.6% (32 cases) among girls and 1.1% (six) among boys. One third of the abused adolescents had experienced more than one abusive event and 46.5% (92/198) had experienced the first event before age 12. Abuse by a family member was reported by 20.5% (36/176) of abused girls and 6.3% (3/48) of abused boys. Abusers were known to victims in two thirds of cases. Ninety per cent of abusers were male and 35.3% (71/201) came from the victims' peer group. Over 80% of participants found the questionnaire interesting, clearly formulated, and useful.

Conclusions—Child sexual abuse is a universal social phenomenon. Adolescents themselves can contribute to research and so help in the search for more efficient prevention and intervention strategies.

Introduction

Child sexual abuse generates deep concern world wide as a social phenomenon and pressing public health issue. The potentially traumatic impact of child sexual abuse is well documented,¹⁻⁴ notably as a contributory factor in poor school performance, substance abuse, delinquency, prostitution, sexual dysfunction, mental illness, suicide, and transmission of abusive behaviour to subsequent generations.⁵⁻¹² Over the past two decades epidemiological studies have yielded prevalence estimates of child sexual abuse ranging between 6% and 62% for women and 3% and 31% for men.^{13 14} The lack of more accurate data hampers the design of intervention and prevention programmes, finding a means to evaluate their efficacy, and comparison of regional and international rates.

Five main methodological factors probably contribute to the variability in the reported prevalence of child sexual abuse. Firstly, the definition of child sexual abuse will modify the prevalence if abuse without contact (for example, exhibitionism) is excluded or if an arbitrary age differential is set between abusers and victims.¹⁵ Secondly, the form of questioning may lead to higher prevalence estimates when subjects are invited to report

specific types of abuse and asked several questions whereas it leads to lower estimates when only one or two questions are asked and subjects must personally define the event as sexual abuse.¹⁶⁻¹⁸ Thirdly, potential biases may be introduced by the method of gathering data (for example, by face to face interview, telephone interview, or self report questionnaire).^{17 18}

The type of population sampled is also relevant. Higher prevalence rates may be elicited in so called non-probability samples (for example, psychiatric in-patients or male sex offenders) and lower rates in random samples (generally "samples of convenience" such as undergraduates).^{18 19} Lastly, asking adults to recall child sexual abuse years or decades after the event may be complicated by the vagaries of memory recall and the complex mechanisms (encoding, storage, retrieval, distortion, suppression) by which we process traumatic events.^{13 20}

We aimed at measuring the cumulative prevalence of child sexual abuse by means of an anonymous self administered questionnaire centred on a factual description of sexual activities by a representative sample of adolescents. We also aimed at collecting data on specific forms of child sexual abuse, on the characteristics of abusers, and on several key processes, such as disclosure by victims and its outcome.

Subjects and methods

A total of 1193 ninth grade pupils in 68 classes randomly selected from the 201 ninth grade classes of the public school system in Geneva were surveyed by means of a specially designed self administered questionnaire. The sample was representative of the 3497 adolescents who were in their last year of compulsory education in 1994-5. In Geneva 88.2% of all ninth grade adolescents attended public school that year.

Questionnaire—The questionnaire was seven pages long and contained 20, mostly closed questions and ample space for free comment. Adolescents could complete it within 45 minutes. At its core it comprised a list of common forms of child sexual abuse described in a factual and activity specific manner. Participants were instructed to tick those activities they had been subjected to during their lifetime. Other sections detailed the setting and characteristics of the reported events, the victim's reaction to the events, the participant's gender and age, and the participant's appraisal of the questionnaire. Most questions included the responses "I don't want to answer," "I don't remember," and "It never happened to me." Participants were invited to give personal comments, including additional information on the reported events. Consistency was ascertained by matching the answers to various related questions and to the comments.

Procedure—Information sessions were organised in each school for teachers and other staff. Each selected class then attended an information session on the aims of the study, modalities of participation and consent, and common definitions of child sexual abuse. Examples of sexually abusive and non-abusive activities were discussed with the pupils, statements apparently based on misconceptions were corrected, and the

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Table 1—Prevalence of specific forms of abuse by gender†

	Boys (n=548)			Girls (n=568)			Rate difference		P value (χ^2 , boys v girls)
	No	%	95% Confidence interval	No	%	95% Confidence interval	%	95% Confidence interval	
Abuse without contact‡									
Abuser's genitalia exposed	16	2.9	1.7 to 4.7	69	12.1	9.6 to 15.1	9.2	6.0 to 12.4	< 0.0001
Expose own genitalia to abuser	13	2.4	1.3 to 4.0	30	5.3	3.6 to 7.5	2.9	0.5 to 5.3	< 0.02
Watch abuser masturbating	8	1.5	0.6 to 2.9	31	5.5	3.7 to 7.7	4.0	1.7 to 6.3	< 0.0003
Look at pornographic material	28	5.1	3.4 to 7.3	27	4.8	3.2 to 6.9	0.4	-2.4 to 3.1	NS
Be filmed for pornographic use	3	0.5	0.1 to 1.6	4	0.7	0.2 to 1.8	0.2	-0.9 to 1.4	NS
Sexual harassment	2	0.4	0.0 to 1.3	5	0.9	0.3 to 2.0	0.5	-0.6 to 1.6	NS
Abuse with contact‡									
Fondle other child, abuser watching	2	0.4	0.0 to 1.3	7	1.2	0.5 to 2.5	0.9	-0.4 to 2.1	NS
Be fondled by abuser	12	2.2	1.1 to 3.8	96	16.9	13.9 to 20.2	14.7	11.2 to 18.2	< 0.0001
Fondle abuser	8	1.5	0.6 to 2.9	27	4.8	3.2 to 6.8	3.3	1.1 to 5.5	< 0.002
Full intercourse	3	0.5	0.1 to 1.6	15	2.6	1.5 to 4.3	2.1	0.5 to 3.7	< 0.006
Penetration with finger or object	3	0.5	0.1 to 1.6	23	4.0	2.6 to 6.0	3.5	1.6 to 5.4	< 0.0001

†Participants answered following question: "Has an adult or an older child ever not respected you by demanding or forcing you to..." (participants selected from list of various forms of abuse).

‡Several adolescents had experienced more than one form of abuse.

NS = Not significant.

notion that physical or psychological coercion is central to the concept of abuse was highlighted. The questionnaire session was planned for an undisclosed date within two weeks. Participants were seated one per bench. Graduate psychologists of both sexes attended all sessions as research assistants. They answered questions and offered confidential advice on request. School staff were excluded from the classroom during the sessions.

Ethics—Because of the possibility of strong emotional reactions in young participants we aimed at the highest ethical standards. The project was approved not only by the ethics committee of the department of paediatrics but also by school and public health authorities and parents' associations. Confidentiality and anonymity were assured. Participation was voluntary and based on oral informed consent. Given the reported high rates of sexual abuse involving family members we did not seek parental consent. Careful attention was given to the risk of distress in participants. In addition to receiving immediate counselling by the research associates or school based nurses and social workers, participants were provided with a list of institutions and contact workers for specialised help. These safeguards were tested in a pilot phase limited to 100 participants, which was a preliminary condition of the authorities' and ethics committee's final approval for the full scale study.

Statistical analysis—Sexual abuse situations were assessed from the closed questions and free comments. In most cases the free comments confirmed and extended the information provided by the closed questions. In a few cases the free comments clearly identified (n=25) or excluded (n=14) abuse irrespective of answers to the closed questions. The lifetime prevalence rates for each form of abuse were calculated. Data were grouped in mutually exclusive categories according to

whether on at least one occasion participants had experienced abuse with penetration, abuse with physical contact but no penetration, or abuse without contact. As random sampling was performed on classes rather than subjects the design effect was estimated by calculating the ratio of the complex sampling variance to the simple sampling variance.²¹ As this was close to unity the usual formulas for estimating confidence intervals were used. Categorical variables were compared by χ^2 test. Comparisons of rates between boys and girls were expressed as rate differences and 95% confidence intervals.

Results

Of 1193 potential participants, 1130 attended the questionnaire session; 63 were absent for health reasons. No refusals were recorded. Eleven subjects did not specify their gender, three returned incomplete or incoherently completed questionnaires, and 1116 (568 girls, 548 boys) provided analysable questionnaires (participation rate 93.5%). Ages ranged from 13 to 17 years; 619 (55.5%) subjects were aged 15 and 1080 (96.8%) were aged 14-16.

PREVALENCE AND FORMS OF ABUSE

Overall 60 (10.9%) boys and 192 (33.8%) girls reported having experienced at least one sexually abusive event. Abuse was described according to its specific form (table 1) and separated into episodes with and without physical contact (table 2). All types of sexual abuse affected girls more often than boys except the viewing of pornographic material. Girls reported sexual abuse with contact at six times the rate for boys (relative risk 6.2; 95% confidence interval 3.8 to 10.1) and

Table 2—Prevalence and distribution of child sexual abuse by category

	Boys (n=548)			Girls (n=568)			Rate difference		P value (χ^2 , boys v girls)
	No	%	95% Confidence interval	No	%	95% Confidence interval	%	95% Confidence interval	
All types of abuse	60	10.9	8.5 to 13.9	192	33.8	29.9 to 37.9	22.9	18.0 to 27.7	< 0.000
Abuse without contact†	42	7.7	5.6 to 10.2	76	13.4	10.7 to 16.5	5.7	2.0 to 9.5	< 0.002
Abuse with contact, no penetration†	12	2.2	1.1 to 3.8	84	14.8	12.0 to 18.0	12.6	9.3 to 15.9	< 0.0001
Abuse with contact and penetration†	6	1.1	0.4 to 2.4	32	5.6	3.9 to 7.8	4.5	2.3 to 6.8	< 0.0001

†Adolescents who reported both contact and non-contact abuse were included in contact categories only.

sexual abuse without contact at nearly twice the rate for boys (relative risk 1.8; 1.2 to 2.5).

CHARACTERISTICS OF VICTIMS AND ABUSERS

In 92 (46.5%) of 198 abused adolescents who answered the question the first reported sexual event occurred before the age of 12 (table 3). The proportion did not differ between boys and girls or between abuse categories. Abuse was reported as a single event by 97 (59.5%) abused girls and 29 (65.9%) abused boys. Repeated events were more frequently described in situations of abuse with contact (46.3%) than in non-contact abuse (28.6%; rate difference 17.8% (95% confidence interval 3.7% to 31.8%); $P < 0.02$). For 10 (4.6%) abused boys and girls abuse was still occurring at the time of the study. Of all episodes of abuse for which this information was obtained, 139 (62.1%) were carried out by people known to the victims.

The proportion of abuse by people related to the victims was higher in girls (20.5%) than in boys (6.3%; rate difference 14.2% (3.8% to 24.6%); $P < 0.02$) (table 3). Conversely, the proportion of abuse by a family acquaintance was higher in boys (64.6%) than in girls (39.2%; rate difference 25.4% (8.7% to 42.0%); $P < 0.002$). Abuse without contact was more often committed by strangers (58.3%) than abuse with contact (22.7%; rate difference 35.7% (22.5% to 48.8%); $P < 0.0001$). Overall, 191 (90.1%) of the 212 episodes of abuse for which this information was available were perpetrated by males acting alone, with no difference between abuse categories. Boys experienced abuse with contact from females in a higher proportion of episodes (27.8%) than girls (1.9%; rate difference 25.9% (1.8% to 50.0%); $P < 0.001$). Of 201 abusers whose approximate age was reported by the participants, 71 (35.3%) were under 18.

DISCLOSURE OF ABUSE BY VICTIMS

Among 216 abused adolescents who gave information on their reaction to the abuse, 25 of 49 boys (51.0%) and 124 of 167 girls (74.3%) had reported the

Table 4—Evaluation of questionnaire by participants

"I found this questionnaire..."	Boys (n=548)		Girls (n=568)	
	No	%	No	%
Useful	470	85.8	511	90.0*
Clearly formulated	436	79.6	479	84.3*
Interesting	435	79.4	473	83.3
Embarrassing	43	7.8	92	16.2*
Boring	82	15.0	26	4.6*
Too long	89	16.2	33	5.8*
Too difficult	12	2.2	9	1.6

* $P \leq 0.05$ for difference between boys and girls.

abuse. In 20 cases (13.4%) disclosure was contingent on the child's request that nothing should be done and in 65 cases (43.6%) that the matter should be kept a secret. Among victims who reported the abuse, seven (4.7%) thought they had not been believed, 39 (26.2%) considered that nothing had come out of the disclosure, and 40 (26.8%) reported having been helped by the disclosure.

EVALUATION OF QUESTIONNAIRE BY PARTICIPANTS

Over 80% of participants found the questionnaire useful, interesting, and clearly formulated (table 4). More girls judged the questionnaire as embarrassing whereas more boys described it as too long or boring.

Discussion

That as many as one in three girls and one in 10 boys reported sexual abuse at least once in their lifetime may seem surprising and question the definition of child sexual abuse. Without providing an arbitrary definition of child sexual abuse this study offers a classification of specific forms of abuse that should be viewed as strictly descriptive but which might also be interpreted in the light of their perceived severity. For example, we might assume that child sexual abuse with contact is more serious than abuse without contact and that abuse with penetration is more serious than abuse with fondling alone. Though our study did not address the psychological consequences of child sexual abuse, free comment by participants provided elements that contradicted commonly held views on the differential impact of abuse.

Clinical experience suggests that child sexual abuse is most damaging when it is repeated, perpetrated by family members, and involves physical contact backed by force or threats of violence. Several victims in this survey, however, were shocked and distressed by a more banal form of abuse—namely, exhibitionism. Victims also concurred that regardless of the type of abuse their experience was difficult to disclose, and in many cases absolute secrecy was a condition of disclosure. Nevertheless, when we applied a hierarchical approach based on preconceived assumptions about the severity of child sexual abuse the prevalence of what might be considered the most severe form—that is, with penetration—was roughly 1.0% in boys and 6.0% in girls. Though far smaller than the figures for all forms of abuse, these rates are of grave concern and confirm that Switzerland shares in this universal social phenomenon.¹⁴

COMPARISON WITH OTHER STUDIES

The prevalence estimates in this survey accord with those from two recent and partially comparable studies. In a nationwide telephone survey of 2000 children aged 10-16 years in the United States 23.5% of girls and 9.6% of boys reported being subjected to a completed or attempted sexual assault at least once.²² Contact abuse—defined as the touching of sexual parts by the

Table 3—Main characteristics of victims and abusers

	Abuse without contact				Abuse with contact			
	Boys (n=42)		Girls (n=76)		Boys (n=18)		Girls (n=116)	
	No	%	No	%	No	%	No	%
Age at first abuse (years)†:								
<8	4	16.7	13	24.1	5	29.4	19	18.4
8-11	8	33.3	17	31.5	5	29.4	21	20.4
≥12	12	50.0	24	44.4	7	41.2	63	61.2
No answer	18		22		1		13	
No of abuse events†:								
1	19	67.9	41	73.2	10	62.5	56	52.3
2-5	8	28.6	14	25.0	3	18.8	37	34.6
≥6	1	3.6	1	1.8	3	18.8	14	13.1
No answer	14		20		2		9	
Relationship to abuser(s)†:								
Family member	2	6.7	8	12.1	1	5.6	28	25.5
Family acquaintance	20	66.7	10	15.2	11	61.1	59	53.6
Stranger	8	26.7	48	72.7	6	33.3	23	20.9
No answer	12		10		0		6	
Gender of abuser(s)†:								
Male	26	86.7	52	92.9	12	66.7	101	93.5
Female	4	13.3	2	3.6	5	27.8	2	1.9
Both	0	0	2	3.6	1	5.6	5	4.6
No answer	12		20		0		8	
Age of abuser(s) (years)†:								
<18	13	48.1	11	22.0	5	27.8	42	39.6
18-34	10	37.0	16	32.0	8	44.4	37	34.9
≥35	4	14.8	23	46.0	5	27.8	27	25.5
No answer	15		26		0		10	

†Participants could answer "I don't remember," "I don't want to answer," or "It never happened to me" or simply not reply, depending on question. Percentages refer only to participants who answered.

Key messages

- Of 1116 adolescents aged 13-17 years who answered a self administered questionnaire anonymously, 192 (33.8%) girls and 60 (10.9%) boys reported having experienced at least one sexually abusive event
- The prevalence of sexual abuse involving physical contact was 20.4% among girls and 3.3% among boys; the prevalence of abuse involving some form of penetration was 5.6% among girls and 1.1% among boys
- Half of the children reporting sexual abuse experienced the first event before the age of 12; in one third of cases the abuser was an adolescent
- Lengthy preparation resulting in ethical approval, firm political and administrative backing, and a complex operational partnership with schools were prerequisites for a study that confronted adolescents with a sensitive topic
- The responsible participation of the adolescents indicated that they could provide useful collaboration in epidemiological research in a topic of concern to them

perpetrator, penetrating the child, or orogenital contact, with or without the use of force—was reported by 6.9% of girls and 1.0% of boys. In Finland, of over 7000 15-16 year olds who answered an anonymous self administered questionnaire on domestic violence and sexual abuse,²³ 7.6% of girls and 3.3% of boys indicated that they had experienced contact (including non-genital) abuse with a perpetrator at least five years older. This compares with a prevalence of 11.0% and 2.5% among girls and boys in Geneva when using the same age differential criteria.

Despite different sampling techniques and the use of different questionnaires, those studies and ours share an important feature—namely, all investigated the prevalence of child sexual abuse in population samples closer in time to the reported events than in other studies. By removing the restrictions imposed by standard retrospective research frameworks we believe that the prevalence rates obtained are more accurate, as they are less subject to waning or distorted recall. Moreover, contrary to common belief the reliability of answers given by adolescents in anonymous questionnaires on sensitive issues such as sexuality, suicide, and drug dependence seems to be equal to and possibly superior to that of adults.²⁴

In addition, this innovation in child sexual abuse research may be yielding unexpected findings. For example, over one third of abusers were adolescents themselves, confirming that not only adults perpetrate child sexual abuse. That such a high proportion of perpetrators were in the victims' peer group deserves careful study in relation to the complex dating and sexual behaviour of adolescents. It suggests that for a sizeable minority of adolescents there is a rougher, possibly even traumatic side to their experience of sexual exploration.

Because this study confronted adolescents with a sensitive topic its feasibility must be emphasised. Lengthy preparation resulting in ethical permission, firm political and administrative backing, and a complex operational partnership with 17 schools were

prerequisites. Minimising untoward distress was paramount, and follow up in the school system and in Geneva's counselling services confirmed that this objective was met. One factor in the smooth running of the study was the responsible participation of the adolescents. In line with this, both in the questionnaires themselves and in informal comments many adolescents indicated that there should be more research and action in this topic. That young participants and victims can provide this type of encouragement bodes well for future epidemiological research, for the design of efficient intervention and prevention strategies, and for the training of highly specialised psychosocial and medical staff.

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