

Selling Sex in a Population-Based Study of High School Seniors in Sweden: Demographic and Psychosocial Correlates

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Abstract Adolescents reporting selling sex for payment were studied with respect to socioeconomic background, perceived mental health and health behavior, antisocial behavior, sexual experiences, including sexual abuse and abusive behaviors, and the use of pornography. The sample consisted of a representative sample of 4,339 students (response rate, 77.2%) from the third year of upper secondary schools in five Swedish cities. Of the participating adolescents, 1.8% of the boys and 1.0% of the girls indicated that they had sold sex for money or other reimbursements. Selling sex was associated with having an immigrant background, higher level of unemployment in the family, and studying a practical/vocational program. Adolescents with the experience of selling sex had an increased risk for different psychosocial problems, such as poorer mental health, weekly use of alcohol, and antisocial behaviors. The adolescents selling sex were also characterized by having had a greater number of sexual experiences, a greater preoccupation with sex, relatively early sexual debut, and experience with sexual abuse as victim and/or perpetrator. The index group students watched pornography more frequently than the majority and they also watched more deviant forms of pornography. The significance of the higher frequency among boys and the gray zone between normal sexual exploration and prostitution are discussed.

Keywords Sexual exploitation · Selling sex · Prostitution · Adolescents · Epidemiology · Prevalence

Introduction

Sexual exploitation of children can take many different forms but the three main forms recognized in the literature are child prostitution/sexual exploitation for payment, child pornography, and trafficking in children for sexual purposes. Child prostitution refers to the sexual exploitation of a child for remuneration in cash or in kind, usually but not always organized by an intermediary (Estes, 2001). The exchange is exploitative in the sense that it comes about in a relation of unequal power in the form of economic, cognitive, and psychosocial capability. The present study was concerned with child sexual exploitation in the form of child prostitution or sexual exploitation for payment, “selling sex for money or other reimbursements.” A child was defined according to the 1989 United Nations Convention on the Rights of the Child, Article 1 as “every human being below the age of 18 years unless, under the law applicable to the child, majority is attained earlier.”

The scope of the problem and background factors

Few studies have examined the extent of child sexual exploitation and, especially, exploitation in the form of selling sex for money or other reimbursement. Possible reasons for this are that much these activities are hidden, only a fraction of occurrences are reported to authorities, and official statistics do not distinguish different forms of sexual exploitation from one another. Most studies have focused on adult prostitution, especially among women. In such studies, often based on interviews of a small group of informants,

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one finding has been that many of these prostitutes started their activity during childhood. Skidmore (2000) found, in a study from Nottingham in the United Kingdom, that the most common age for entering into street prostitution was between 12 and 15 years of age and Nadon, Koverola, and Schludermann (1988), in a study in Canada, reported that the average age at the time of initial prostitution activity was 14.1 years.

Cottler, Helzer, and Tipp (1990) reported, based on a community sample from St. Louis in the United States, that the lifetime prevalence for prostitution was four percent among men and two percent among women. Street children or homeless children were more likely to engage in selling sex for exchange for shelter, food, drugs or money, so-called “survival sex” (Greene, Ennett, & Ringwalt, 1999). Estes and Weiner (2001), in a large North American survey, estimated that 300,000–400,000 children were annually in the risk zone for child sexual exploitation. They identified 17 different categories of sexually exploited children. They found that the largest group comprised children who had run away from home. Several other studies also have indicated that children who have run away from home are at high risk for engaging in prostitution (Johnson, Aschenasy, Herbers, & Gillenwater, 1996; Kipke, O’Connor, Palmer, & MacKenzie, 1995; Kirby, 1995; Lee & O’Brian, 1995; McCarthy & Hagan, 1992; Pearce, 2003; Roy et al., 2000).

Earlier studies of young girls engaging in prostitution found that some of the most common risk factors connected to prostitution were earlier sexual abuse (Bagley & Young, 1987; Earls & David, 1990; Foti, 1994; Pearce, 2003), physical abuse (Bagley & Young, 1987; Foti, 1994; Pearce, 2003), dysfunctional families (MacVicar & Dillon, 1980), domestic violence (Bagley & Young, 1987), and parental alcohol abuse (Bagley & Young, 1987; Black, Bucky, & Wilder-Padilla, 1986).

Folkehelsa (1993) found in a sample of Norwegians 18–60 years of age that 1.0 percent of the men and 0.6 percent of the women reported that they had sold sex for money. Eighty percent answered that they had done this before reaching the age of 20.

There are a couple of studies that have tried to establish the frequency of selling sex among young people. Thoresen (1995) found, in a sample of Norwegian students 13 to 17 years old, that 1.3 percent had sold sex during the last 12 months. In an extension of the research project called “Young in Oslo” (Bakken, 1998), Pedersen and Hegna (2003) analyzed the prevalence of selling sex for payment by asking “Have you, in the course of the recent 12 months, given sexual favors for payment?” Among the 10,828 adolescents, 14–17 years old, 1.6 percent (2.1 percent of the boys and 0.6 percent of the girls) reported that they had sold sex for payment. They also found that the practice of selling sex for payment was associated with low age for first intercourse,

conduct problems, alcohol problems, use of drugs, and being victims of violence. A Norwegian study by Mossige (2001) put the same question to 710 young people, 18–20 years old with the result that 3.9 percent of the boys and 1.7 percent of the girls answered that they had given sexual favors for payment. Two recent community based studies in Denmark support the Norwegian findings even though the Danish students were somewhat younger (in both studies 15–16 years of age). In a study of 5,829 pupils, Helweg-Larsen (2003) reported a prevalence of 1.1% among boys and 0.8% among girls. In another study of 2,410 pupils, Vejle Amt (2005) found that 1.6% of the pupils answered that they had sold sex for money. In the AddHealth study from the United States, which studied a somewhat older national sample (18 to 26 years old), 2.8% reported that they had had sex with someone who paid them to do so (Carolina Population Center, 2006).

The current study was conducted to estimate the extent of selling sex among Swedish adolescents. To our knowledge, no other researchers have obtained such information. Specially, we sought to study the demographic and psychosocial correlates to this form of behavior. Is selling sex, among adolescents in Sweden, associated with psychosocial problems and with the previous experience of sexual abuse as in other countries? The study also intended to provide the basic information for Sweden that is needed for planned comparative studies under the aegis of the Baltic Sea Regional Study on Adolescent Sexuality.

Method

Participants

Our goal was to obtain a representative sample of high school seniors (3rd year high school students). Those who formulated the Baltic Sea Regional Study on Adolescent Sexuality had decided that the areas selected in each Baltic country should contain the capital of the country, one larger port, and some smaller cities. Following these guidelines led us to choose Stockholm (capital), Malmö (large port), and Luleå, Haparanda, and Falköping. All 3rd year students (high-school seniors) in all of the high schools in these cities were included in the initial group. Ninety eight percent of all students finishing grade 9 in the compulsory Swedish school system enter the senior high school system (grade 10–12) each year, and 90.3% of 18-year-old Swedish adolescents are enrolled in high school during any one year. Approximately 80% will graduate from the senior high school system after three years of schooling (Statistics Sweden, 2003). Of the remaining students, 15% will complete their programs later within the adult education system.

In the participating schools 10,751 high school seniors were registered. At that time, there were 17 different national

educational programs in Sweden. By applying a sampling procedure designed to ensure proportional representation of all programs and classes, 52.3 percent of the total was selected, and 4,377 students actually participated in the study. Only 38 of the completed questionnaires had to be excluded because they had not been correctly filled in, so the final number of participants was 4,339, yielding a response rate of 77.2%. The mean age of the participants was 18.15 years ($SD = 0.74$).

Procedure

We started by asking the director of the entire school system in each participating community to grant us permission to present our research project to the principal of each high school. Once permission had been obtained from the principal of a school, all student in the selected classes were asked for and gave consent based on their consideration of oral and written information. One assistant from the research group visited each class to distribute the questionnaires and then collect them when the students had finished them. In order to ensure that students could not influence each other, all of the students completed the questionnaire at the same time in the classroom. If the classroom was too small to guarantee privacy another room was chosen. The anonymous questionnaires were placed in unmarked envelopes, sealed by the students, and collected by the research assistant. The students were given oral and written information about where they could get counseling if participation had caused feelings of distress.

Measures

Our questionnaire was based on the questionnaire used by Mossige (2001) in a Norwegian study of young people's attitudes towards sexuality and sexual abuse. We added questions used in other Nordic surveys concerning young people's sexual experiences (Edgarth, 2001; Hammarén & Johansson, 2001, 2002; Tambs, 1994) and questions especially formulated for the study. The questionnaire was divided into seven parts: (1) background information, including smoking and alcohol use, (2) consensual sexuality, (3) sexual abuse experiences, (4) own sexual abusive behavior, (5) sexual attitudes, (6) experiences with pornography, and (7) experiences of sexual exploitation. There were 65 main questions and 400 sub-questions.

This article was focused on sexual exploitation and by posing the following question to measure the dependent variable: "Sometimes people willingly do sexual activities for pay. Have you ever sold sexual services?" If this question was answered with a yes, the informant was categorized as having sold sex, and called the index group. Adolescents answering no to this question constituted the reference group.

The question was followed by questions about what kind of sexual activity was sold, what kind of compensation was given, how the contact was established, how many times it happened, the age at the first occasion, connection to alcohol or drug use, and attitudes towards selling sex.

The International Socioeconomic Index (ISEI) was used to classify occupational status of the parent or parents (Ganzeboom, de Graaf, & Treiman, 1992). The ISEI has values ranging from 0 to 90 and measures the attributes of occupation that convert a person's education into income and thus status. The higher the value, the higher the occupational status. The ISEI was used in the OECD Program for International Student Assessment (PISA) in the year 2000. In this study, the ISEI was derived from student's responses on parental occupation. The value for each student was based on either the father's or mother's occupations, whichever was ranked higher. On average, across OECD countries, the value of the index was 49 and the SD was 16 (OECD, 2001).

Three scales were used in this study: Mental Health scale, Conduct Problems scale, and Sexual Attraction scale.

The Mental Health scale consisted of six questions from the SCL-90 depressive scale (Derogatis, 1979). The six questions were about problems and worries experienced during the preceding week (felt that everything was a struggle, had any trouble sleeping, felt unhappy, miserable or depressed, felt helplessness towards the future, felt tied up or tense, and worried too much about things). Each question was scored 1–4 and consequently the total score of the Mental Health scale ranged from 6 to 24. In the calculation of the odds ratios, a cut off was set at the 80th percentile, resulting in a cut off point of ≥ 19 . The internal consistency, assessed using Cronbach's alpha, was 0.84.

The Conduct Problems scale used five questions about breaking rules or engaging in antisocial behavior during the preceding year (had been caught stealing something worth more than £100, committed burglary/theft by breaking and entering, been away overnight from home without your parents knowing whereabouts, stolen a car or a motorbike, and had a severe quarrel/argument with a teacher). The Conduct Problem scale had scores ranging from 0 to 5. For calculating odds ratios, a cut off at ≥ 2 was set, corresponding to the 90th percentile. The Cronbach's alpha was 0.58.

The Sexual Attraction scale used two questions about sexual attraction to a person of the opposite sex: "On a scale measuring the attraction to the opposite sex, how would you place yourself?" and to a person of the same sex: "On a scale measuring the attraction to a person of the same sex, how would you place yourself?" Both questions had a 5 point response scale ranging from no attraction (1) to strong attraction (5). A score ≥ 3 on the opposite sex scale in combination with a score < 3 on the same sex scale was interpreted as a heterosexual attraction pattern. A low score (< 3) on the opposite sex scale and a high score (≥ 3) on the

same sex scale was interpreted as a homosexual attraction pattern. A high score (≥ 3) on both scales indicated a bisexual attraction pattern, and finally a low score on both scales (≤ 2) was categorized as an asexual pattern.

The study was approved by the Human Research Ethics Committee, Medical Faculty, Lund University.

Results

Prevalence of selling sex: Descriptive characteristics

A total of 60 (1.4%) of the 4,339 participants answered that they had sold sex for payment. Of the 60 young people, 23 (1.0%) were girls and 37 (1.8%) were boys and the gender difference was significant ($\chi^2 = 5.65$, $df = 1$, $p = .017$).

The majority of the adolescents in the index group (76.7%) were between 14–18 years of age when they sold sex for the first time. The mean age was 15.9 years ($SD = 1.08$, range, 10–18 years), with the girls slightly older. Forty-four of the 60 adolescents answered the question about frequency. Seventeen answered once, ten that it happened 2–5 times, and 17 answered more than five times. There was no significant difference between the two genders.

The most common form of activity among girls (46%) was to masturbate openly in front of the person who paid them and among boys (79%) to have sexual intercourse for pay. Boys reported significantly more often than girls that they themselves had offered sexual intercourse for pay ($\chi^2 = 9.10$, $df = 1$, $p = .003$), anal sex for pay ($\chi^2 = 7.07$, $df = 1$, $p = .008$), or receiving pay for being photographed or filmed while engaging in some form of sexual activity ($\chi^2 = 7.94$, $df = 1$, $p = .005$).

Money was the most common compensation offered both girls (61%) and boys (57%). The only compensation that differed between the genders was that girls received clothes and other items more often than boys did (Fisher's Exact Test, $p = .024$). Survival sex (giving sex in exchange for food and housing) was not common; only 4–5 percent reported that they had done this. Two girls stated that they had sold sex for drugs/narcotics.

The most common way to get in contact with the buyer was, among both girls (30%) and boys (35%), through friends. The only significant gender difference regarding contact was that 27 percent of the boys and 4 percent of the girls met the buyer at the local bar/pub/inn (Fisher's Exact Test, $p = .039$).

Demographic correlates of selling sex

The percentage of girls and boys with a foreign background was greater in the index group than in the reference group.

Thirty-two (54.2%) of 59 adolescents in the index group stated that they were born in Sweden with one or both parents born outside Sweden compared with 32.8 percent in the reference group. This difference concerning second-generation immigrants was significant ($\chi^2 = 12.02$, $df = 1$, $p = .001$) and this was mainly explained by the differences among boys ($\chi^2 = 15.33$, $df = 1$, $p < .001$). Fifteen boys (40.5%) and 5 girls (23.8%) in the index group were not born in Sweden compared to 15.1% and 15.0% in the reference group. This difference was significant for the boys ($\chi^2 = 17.96$, $df = 1$, $p < .001$) but not for the girls.

In the index group, 47.5% of the students lived with both of their parents compared to 61.0% in the reference group ($\chi^2 = 9.10$, $df = 1$, $p = .034$). Twenty-two percent of the students in the index group did not live with either parent, compared to 7.5 percent in the reference group (Fisher's Exact Test, $p < .001$). A greater percentage of the students in the index group lived by themselves (Fisher's Exact Test, $p = .011$) or in foster home/institution (Fisher's Exact Test, $p = .008$) than did students in the reference group.

There was no significant difference between the SES classification of the two groups. The mean ISEI in the index group was 53 ($SD = 18$) for the boys and 58 ($SD = 21$) for the girls whereas the correspondent figures in the reference group were 56 ($SD = 17$) and 55 ($SD = 17$). There was, however, a significant difference in the employment status of the parents of the index group students compared with reference group students. In the index group, both parents were more likely to be unemployed than parents of the reference group ($\chi^2 = 19.23$, $df = 4$, $p = .001$). This was explained mainly by the lower employment rate among the mothers of the boys in the index group (35.1%) compared to the reference group (76.8%) ($\chi^2 = 41.85$, $df = 3$, $p < .001$).

The 17 different educational programs were condensed into two major program groups, one a general/economic program and the other a practical/vocational program. There was no significant difference between the girls from the two groups but index boys were more likely to have chosen a practical/vocational program (56.8%) than the boys in the reference group (34.2%), ($\chi^2 = 8.19$, $df = 1$, $p = .004$).

These differences in background factors were adjusted for in the logistic regressions when calculating odds ratios.

Perceived mental health and health behavior

Adolescents in the index group reported more emotional problems than their peers in the reference group. The girls in the index group perceived their mental health during the preceding week as having been worse than the girls in the reference group. Table 1 shows that this was true for almost all of the responses to the 6 questions concerning depressive mood and the mental health score (aOR 3.95, 95% CI 1.65–9.45, $p = .002$). Table 1 also shows some significant

Table 1 Perceived mental health and health behavior

Perceived mental health, during the preceding week, have you	Girls				Boys				p			
	Not sold sex, N = 2231–2277 (%)	Sold sex, N = 21–23 (%)	cOR ^a	aOR ^b	95% CI	p	Not sold sex, N = 1945–1956 (%)	Sold sex, N = 34–37 (%)		cOR ^a	aOR ^b	95% CI
Felt that everything is a struggle?	31.0	56.5	2.89	2.52	1.06–6.00	.036	20.9	40.5	2.59	2.56	1.29–5.08	.007
Had any trouble sleeping?	22.1	52.2	3.84	1.69	1.61–9.11	.002	17.0	24.3	1.57	1.34	0.61–2.91	ns
Felt unhappy, miserable or depressed?	20.9	52.2	4.13	4.07	1.71–9.66	.001	11.0	13.5	1.27	0.98	0.37–2.63	ns
Felt helplessness towards the future?	17.2	43.5	3.71	3.56	1.48–8.59	.005	10.2	27.8	3.40	2.46	1.12–5.37	.024
Felt tied up or tense?	18.9	60.9	6.67	5.75	2.39–13.79	<.001	9.4	22.2	2.76	2.31	1.00–5.31	.049
Worried too much about things?	36.7	56.5	2.25	2.28	0.95–5.46	ns	19.0	35.1	2.31	1.76	0.86–3.61	ns
Mental health score ≥ 19	25.0	56.5	3.89	3.95	1.65–9.45	.002	13.2	27.0	2.43	1.75	0.81–3.80	ns
Health behavior												
Smokes every day	18.3	28.6	1.79	1.75	0.65–4.77	ns	10.4	27.0	3.18	2.39	1.10–5.21	.028
Drinks alcohol once a week or more	19.1	52.1	4.61	4.79	2.00–11.46	<.001	24.2	47.1	2.79	3.16	1.56–6.41	.001

^acOR = crude odds ratio, aOR = adjusted odds ratio with adherent confidence interval and p value.

^bLogistic regression with selling sex as independent variable and adjusted for being an immigrant, educational program, and parental employment.

differences between the boys in the two groups but there was no difference in mental health score.

Concerning health behavior, there was a difference in smoking habits between the two groups. Table 1 shows that the adolescents in the index group were smokers to a greater extent (67.2% vs. 47.9%) and the group of daily smokers was also larger (27.6% vs. 14.7%). The differences between the two groups were mainly explained by the differences among the boys regarding “smoking at all” ($\chi^2 = 5.76, df = 1, p = .016$), and smoking daily (Fisher’s Exact Test, $p = .004$). There was an association between having sold sex and daily smoking among boys with an adjusted odds ratio of 2.39.

The same pattern was seen as concerned alcohol habits. The age for the alcohol debut was lower for both girls and boys (both 13.2 years) in the index group than for girls and boys in the reference group (boys, 14.6 years; girls, 14.7 years). Table 1 shows that the consumption of alcohol was also significantly higher in the index group than in the reference group ($p < .001$) and 52.1% of the girls and 47.1% of the boys in the index group drank alcohol once a week or more compared to 19.1% of the girls and 24.2% of the boys in the reference group. The adjusted odds ratio for girls selling sex and present weekly alcohol consumption was 4.79 and for boys it was 3.16.

According to the Conduct Problem scale, conduct problems during the preceding year were reported among 68.4% of the boys in the index group compared to 12.0% in the reference group (aOR = 14.68, 95% CI, 4.80–44.92, $p < .001$). Among girls, conduct problems were less prevalent but reported among 21.4% in the index group and 4.3% in the reference group (aOR = 4.17, 95% CI, 0.82–21.34, $p = .086$).

Antisocial behavior

As shown in Table 2, the index group had significantly more often broken rules or engaged in antisocial behavior. The most striking differences between boys in the index group and the reference group were found concerning unspecified stealing (aOR = 5.35), stealing a car or motorbike (aOR = 4.01), and buying sexual services (aOR = 14.41). For the girls, the use of cocaine (aOR = 5.83), stealing a car or motorbike (aOR = 7.81), and having a severe quarrel with a teacher (aOR = 5.84) were the most striking differences reported.

Sexual experience, sexual abuse, and sexual abusive behavior

The age for the first intercourse was lower for both girls (14.4 years; $SD = 1.7$) and boys (14.4 years; $SD = 2.0$) in the index group compared with the reference group (girls, 15.6 years; $SD = 1.5$ and boys, 15.6 years; $SD = 1.6$). An

Table 2 Antisocial behavior

	Girls						Boys					
	Not sold sex, N = 2182–2274 (%)	Sold sex, N = 22–23 (%)	cOR ^a	aOR ^b	95% CI	p	Not sold sex, N = 1875–1947 (%)	Sold sex, N = 35–37 (%)	cOR ^a	aOR ^b	95% CI	p
Have you done any of the actions mentioned below?												
Been stealing something worth more than 1000 SEK?	4.9	21.7	5.36	4.10	1.32–12.80	.015	10.2	45.9	7.47	5.35	2.62–10.95	<.001
Committed burglary/theft by breaking and entering?	1.6	4.5	2.87	2.45	0.31–19.30	<i>ns</i>	9.3	34.3	5.10	3.57	1.68–7.58	.001
Been called up to the headmaster's office for a reprimand?	9.6	26.1	3.31	3.48	1.31–9.27	.012	28.2	47.2	2.28	1.77	0.90–3.50	<i>ns</i>
Not paid the fare on the bus, train or done something similar?	51.4	78.3	3.40	3.25	1.18–8.96	.023	59.3	66.7	1.37	1.63	0.80–3.32	<i>ns</i>
Dropped/missed school?	82.9	86.4	1.31	1.15	0.34–3.96	<i>ns</i>	83.0	80.6	0.85	0.88	0.37–2.05	<i>ns</i>
Been away overnight from home without your parents knowing your whereabouts?	30.2	56.5	3.00	2.51	1.06–5.97	.037	38.3	54.1	1.89	1.82	0.93–3.56	<i>ns</i>
Stolen a car or a motorbike?	1.2	8.7	7.92	7.81	1.64–37.26	.010	6.6	29.7	5.95	4.01	1.84–8.73	<.001
Had a severe quarrel/argument with a teacher?	3.6	21.7	7.51	5.84	1.87–18.23	.002	7.1	29.7	5.52	3.80	1.76–8.19	.001
Bought sexual services?	0.0	0.3					1.7	27.0	21.41	14.41	5.94–34.98	<.001
Used hashish or marihuana?	21.1	52.2	4.09	3.89	1.63–9.32	.002	25.9	44.4	2.28	2.24	1.13–4.44	.021
Used cocaine, heroin, amphetamine, or drug related pills like ecstasy?	6.0	30.4	6.82	5.63	2.07–15.25	.001	6.8	16.2	2.63	1.93	0.76–4.90	<i>ns</i>

^acOR = crude odds ratio, aOR = adjusted odds ratio with adherent confidence interval and *p* value.

^bLogistic regression with selling sex as independent variable and adjusted for being an immigrant, educational program, and parental employment.

Table 3 Sexual attraction pattern

Sexual attraction pattern	Girls		<i>p</i>	Boys		<i>p</i>
	Not sold sex, <i>N</i> = 2282 (%)	Sold sex, <i>N</i> = 23 (%)		Not sold sex, <i>N</i> = 1964 (%)	Sold sex, <i>N</i> = 37 (%)	
Heterosexual	78.4	43.5		87.4	75.7	
Homosexual	4.5	4.3		3.3	10.8	
Bisexual	15.6	52.2		7.3	13.5	
Asexual	1.6	0.0	<.001	2.0	0.0	.026

analyses of variance showed a significant main effect for selling sex, $F(1, 306) = 36.87$, $p < .001$, but not for gender. The adolescents in the index group also reported having had more sexual partners than the adolescents in the reference group (girls $\chi^2 = 57.25$, $df = 4$, $p < .001$; boys $\chi^2 = 42.44$, $df = 4$, $p < .001$). They also viewed themselves as more sexually experienced than their peers in the reference group did (girls $\chi^2 = 64.80$, $df = 2$, $p < .001$; boys $\chi^2 = 27.55$, $df = 2$, $p < .001$).

In Table 3, the participants reported sexual attraction pattern is shown. There was a significant difference between the index group boys and the reference group boys ($\chi^2 = 9.25$, $df = 3$, $p = .026$), mainly explained by more boys having a homosexual (10.8%) or bisexual attraction pattern (13.5%) in the index group compared to the reference group (3.3% and 7.3%, respectively). There was also a significant difference between the index group girls and the reference group girls ($\chi^2 = 23.03$, $df = 3$, $p < .001$), but this difference was explained mainly by a greater percentage of girls in the index group having a bisexual attraction pattern (52.2%) than those in the reference group (15.6%).

Table 4 shows that it was more common for adolescents in the index group to report that they had been persuaded, pressed or forced to engage in sexual activities they could not protect themselves from. Almost all of the girls and three fourths of the boys in the index group had experienced some form of sexual abuse. All forms of abuse were more prevalent among the adolescents in the index group with adjusted OR varying between 2.38 to 18.94. Sixty one percent of the girls and 29.7% of the boys in the index group had experienced penetrative forms of sexual abuse (intercourse, oral sex or anal sex).

Information was missing concerning the age when the abuse took place for 17 of the 49 adolescents in the index group who had experienced some form of sexual abuse. Twenty-two (69%) of the remaining 32 adolescents reported that sexual abuse had preceded selling sex for payment.

In the total population of 4,339 adolescents, 309 (7.1%) reported that they had sexually abused another individual. Among the 4,279 adolescents that had not sold sex, 6.6% answered that they had behaved in a sexually abusive manner compared to 43.3% among the adolescents in the index group (Fishers Exact Test, $p < .001$). As shown in Table 5, this

experience of sexually abusive behavior was more prevalent among boys in both groups. All forms of sexual abuse were more prevalent among the adolescents in the index group with adjusted OR varying from 6.33 to 41.76. Penetrative forms of sexual abuse behavior (intercourse, oral sex or anal sex) had been forced on others by 13.0% of the girls and 27.0% of the boys in the index group.

The use of pornography

A majority of all adolescents, 91.4% in the index group and 86.0% in the reference group, had watched pornography in some form. Generally, it was more common among boys than among girls to have watched pornographic material ($\chi^2 = 401.61$, $df = 1$, $p < .001$) and the most common was to have watched pornography distributed by cable or satellite television (70.4%) or through the Internet (56.1%). A significantly higher percentage of the girls in the index group had watched pornography than the percentage girls in the reference group irrespective of source.

Both boys and girls in the index group watched pornography more often than boys ($\chi^2 = 37.11$, $df = 5$, $p < .001$) and girls ($\chi^2 = 38.42$, $df = 5$, $p < .001$) in the reference group. Almost 38% of the boys in the index group watched pornography almost every day compared to 9.4% in the reference group.

Table 6 shows what kind of pornography the adolescent had watched. There were no significant differences between the boys in the two groups concerning the watching of ordinary pornography, such as film showing sex between adults. Index group girls had watched all sorts of pornography significantly more often than the reference group girls. For boys, there was little difference between index and reference groups in the consumption of pornography except as concerns the watching of more advanced or deviant forms of pornography, often called “hard-core” pornography.

Discussion

This study was conducted to explore how common the practice of selling sex was among high school seniors in Sweden and then to investigate the demographic and psychosocial

Table 4 Experience of sexual abuse (victim)

	Girls		Boys					
	Not sold sex, N = 2301(%)	Sold sex, N = 23(%)	Not sold sex, N = 1978 %	Sold sex, N = 37 (%)	cOR ^a	aOR ^b	95% CI	p
Have you been exposed to any of the following against your will?								
Somebody exposed him/herself indecently towards you?	27.2	43.5	7.8	43.2	8.96	7.64	3.78–15.44	<.001
Somebody has (touched your body in an indecent way) pawed on you?	54.3	95.7	14.8	40.5	3.94	3.71	1.86–7.41	<.001
You exposed yourself masturbating towards somebody?	4.7	26.1	2.6	21.6	10.23	8.63	3.53–21.09	<.001
You have had intercourse	10.0	56.5	4.3	27.0	8.25	4.71	2.07–10.74	<.001
You have had oral sex	5.4	47.8	3.2	13.5	4.75	4.00	1.40–11.42	.010
You have had anal sex	2.4	13.0	1.5	10.8	8.15	5.76	1.77–18.70	.004
Any form of abuse	64.3	95.7	21.9	73.0	9.63	7.52	3.55–15.97	<.001
Any form of penetrative sex	13.0	60.9	5.1	29.7	7.86	4.98	2.23–11.10	<.001

^acOR = crude odds ratio, aOR = adjusted odds ratio with adherent confidence interval and *p* value.

^bLogistic regression with selling sex as independent variable and adjusted for being an immigrant, educational program, and parental employment.

Table 5 Own sexual abusive behavior (perpetrator)

	Girls			Boys								
	Not sold sex, N = 2301 (%)	Sold sex, N = 231 (%)	<i>p</i>	Not sold sex, N = 1978 (%)	Sold sex, N = 37 (%)	<i>p</i>						
Have you, yourself, dragged someone into, persuaded, pressed or forced someone to engage in sexual activities?												
You have exposed yourself indecently to somebody	0.3	8.7	36.43	41.76	7.33–237.88	<.001	2.6	18.9	8.64	7.16	2.87–17.85	<.001
You have touched somebody in an indecent way or pawed on somebody	1.6	21.7	17.48	14.82	4.56–48.20	<.001	8.0	43.2	8.72	7.72	3.83–15.56	<.001
You have made somebody masturbate to you	0.1	0.0					1.7	24.3	18.38	17.05	6.92–41.98	<.001
You have had intercourse	0.6	13.0	24.50	31.58	7.98–125.02	<.001	2.8	24.3	11.03	7.89	3.36–18.51	<.001
You have had oral sex	0.3	0.0					2.1	18.9	11.02	10.19	3.95–26.27	<.001
You have had anal sex	0.0	0.0					1.0	18.9	22.84	15.35	5.62–41.97	<.001
Any form of abusive behavior	2.3	21.7	11.78	10.18	3.23–32.05	<.001	11.6	56.8	9.98	7.68	3.86–15.28	<.001
Any form of penetrative sex	0.8	13.0	19.03	23.14	5.99–89.30	<.001	4.1	27.0	8.56	6.33	2.82–14.22	<.001

^acOR = crude odds ratio, aCR = adjusted odds ratio with adherent confidence interval and *p* value.

^bLogistic regression with selling sex as independent variable and adjusted for being an immigrant, educational program and, parental employment.

Table 6 The use of pornography, different sorts of pornography

	Girls			Boys		
	Not sold sex, N = 2301 (%)	Sold sex, N = 23 (%)	<i>p</i>	Not sold sex, N = 1978 (%)	Sold sex, N = 37 (%)	<i>p</i>
What sort of pornography have you been watching?						
Sex between an adult man and a woman	69.2	100.0		92.4	81.1	<i>ns</i>
Sex between more than two persons	42.1	82.6	6.53	8.22	2.41–28.08	.001
Sex between two adults of the same sex	36.0	82.6	8.45	7.61	2.55–22.72	<.001
Sex with violence and force	3.5	17.4	5.85	6.93	2.25–21.33	.001
Sex between adults and children	0.6	8.7	15.56	18.23	3.74–88.90	<.001
Sex with animals	3.1	13.0	4.64	5.15	1.46–18.10	.011

^acOR = crude odds ratio, aCR = adjusted odds ratio with adherent confidence interval and *p* value.

^bLogistic regression with selling sex as independent variable and adjusted for being an immigrant, educational program, and parental employment.

correlates of this behavior. The main results of the study may be summarized in five main findings.

First, selling sex, as reported by high school seniors, was not very common. Of the participating adolescents, 1.8% of the boys and 1.0% of the girls answered that they had sold sex for money or other reimbursements. If this sample is representative, then this would indicate that among the total number of high school seniors in Sweden, about 900 boys and 500 girls have had this experience.

The prevalence between 1–2% was in accordance with previous studies, which, it must be noted, are mostly Nordic. We do not in our study equate what we designated as “selling sex” with what we regard as the true practice of prostitution. Only one third of the adolescents in our study who had sold sex had done this more than five times, and it is only this subgroup that we believe might justifiably be described as having engaged in what most people regard as prostitution.

Second, our study confirmed the by now rather well documented finding that boys sell sex more often than girls. The gender ratio in our study was 1.8:1 and in the other studies the sex ratio varied between 1.4:1 (Helweg-Larsen, 2003) and 3.5:1 (Hegna & Pedersen, 2002). This ratio has not been addressed very well in the research literature because of the historical focus on adult female prostitution. We think that these community-based studies among young people probably capture a phenomenon that differs from adult prostitution. Jordheim Larsen, and Pedersen (2005) interviewed 60 young people with risk characteristics known from earlier studies (Pedersen & Hegna, 2003) and found two patterns. For girls, they identified a pattern of much older boyfriends who supplied them with drugs. For boys in their mid-teens, they found a pattern of interaction with adult men whose homes served as places for boys to hang out. The boys were often given cigarettes, alcohol or money, and their visits were often filled with exciting activities. For some, this might be an arena where sex can be quite easily exchanged for money or other goods.

The question why boys sell sex more often than girls is difficult to answer. We did not obtain any information in our study about the buyer, but we think it is reasonable to believe that most buyers were men and that the majority of transactions were of a homosexual nature. One possible explanation of the gender difference has to do with the distinction between opposite-sex sex and same-sex sex. Heterosexual men can obtain sexual favors from many of the girls by “romancing” them as the vast majority of the girls were heterosexual. On the other hand, homosexual men may often have to pay to obtain sexual favors from boys, because the vast majority of the boys were also heterosexual. In other words, it is more difficult for buyers to obtain homosexual favors than heterosexual.

This same-sex explanation does not mean that all these boys had a homosexual identity and this assertion is

supported by results from the sexual attraction pattern scale. This scale indicated that only 24.3% of the boys in the index group could be regarded as having a homosexual or bisexual attraction pattern. It is possible that young men trying to find out if their sexual disposition is of a homosexual nature have difficulties in doing so among their peers and are, therefore, left to seek more established partners (older men) with whom they can experiment. When they do this, they also get offers to sell sex. Hegna and Pedersen (2002) hypothesized that the surprisingly higher percentage of young males in this group could be seen as both a double stigmatization (being both a male prostitute and having sex with men and, as a consequence, more prone to report in a study) and a double invisibility (more hidden activity and lack of knowledge among field workers). We think that a study like this probably captures a phenomenon in the gray zone between normal adolescent sexual exploration and established prostitution. More qualitative studies of young males selling sex are needed to gain a better understanding of this rather unexplored group.

Third, selling sex as a young person was more common among students having one or more of the following associations: an immigrant background, a higher level of unemployment in the family, and studying a practical/vocational program. These associations were most evident among boys and we therefore adjusted for them in our calculations of odds ratios. There were no associations between the sale of sex and the SES classification according to the ISEI system. Pedersen and Hegna (2003) found few associations between sale of sex and sociodemographic variables. As all participants were attending school, so called survival sex was rather uncommon among the students in our study (4–5 percent) compared to behavior reported in studies of young prostitutes (Greene et al., 1999; Pearce, 2003). The most common form of reimbursement was money. Boys with immigrant background were overrepresented in the index group. The reason for this may be that they might have a generally higher risk for marginalization in society, including a higher risk for antisocial behavior.

Fourth, there was an increased risk for different psychosocial problems among adolescents selling sex. The mental health status was perceived to be 2–6 times worse, especially by girls, in the index group compared to their peers, and the weekly use of alcohol was 3–4 times higher. Breaking rules or engaging in antisocial behavior was 3–7 times more common, especially among boys, and the abuse of drugs was 2–6 times more common, especially among girls. This increased level of psychosocial dysfunction is in line with earlier studies both on young prostitutes and community based studies (Pedersen & Hegna, 2003). It was not possible within this study to determine if the psychosocial problems listed above were precursors or consequences of selling sex. For example was an increased use of drugs, especially among

girls, a consequence of abusive experiences (often seen as a form of self-medication) or did the drug abuse lead to a risk behaviors including selling sex? A more sensitive research design, which combines a screening questionnaire with in depth interviews, could perhaps help to shed some light over this recurrent question in the future.

Fifth, adolescents selling sex have had a greater number of sexual experiences and were more preoccupied by sex than those without this experience. This was shown by an earlier sexual debut, having had more sexual partners and sexual experiences, including both sexual abuse and being sexual abusive, and in watching pornography. Sexual abusive experiences were 5 to 13 times more common among the index group members, and in the majority of cases, the abuse had taken place before the first experience of selling sex. That does not mean that there is a linear relationship between sexual abuse and selling sex but rather that sexual abuse seems to play an important role in the development of sexual exploitation (Bagley & Young, 1987; Earls & David, 1990; Foti, 1994). Finally, abusive behavior towards others was also much more common among both boys and girls in the index group.

Our results must be interpreted with some caution. First, it was not a complete national sample with adolescents representing proportionally all parts of Sweden. It was a representative community and school based sample from five Swedish cities, chosen to represent cities of different size. Caution must also be taken because our study had a dropout rate of 23% and the size of the index group was very small. Nevertheless, the participation rate of 77% may be seen as acceptable whereas 10% of pupils in the upper secondary school in Sweden are usually absent on any one day for a variety of different reasons. It is possible that the index group behavior patterns were more common among the absentees and among the additional 13% in the dropout group than among the reference group members. In other words, we expect that the reported prevalence of selling sex and the differences between the two groups would be greater with a higher participation rate and the inclusion of high school dropouts. A complementary study of children who have been taken into care or have been placed in foster care would shed some light to this problem.

One may also ask questions about the validity of the participant's answers. Did they tell the truth concerning a sensitive topic as selling sex? We do not know, but in other research on sensitive topics, like drug use and behavior problems, acceptable validity or a tendency to underreporting has been found (Rutter, Giller, & Hagnell, 1998). When comparing anonymous and non-anonymous conditions for assessments by questionnaires with socially sensitive information, Durant, Carey, and Schroder (2002) found that anonymous assessments as well as male gender were associated with better data quality. This supports the validity of the results

in our study given that the questionnaires were anonymous for peers, teachers, and the research group. Nevertheless, the study design resulted in another shortcoming; the inability for us to carry out personal interviews with all of the students and particularly with those in the index group. Qualitative data about the process behind selling sex for the first time could bring new knowledge and understanding of the introduction to this behavior. The only knowledge we had is that the introduction into selling sex, as also reported in studies of young prostitutes (Jesson, 1993; O'Neill, Goode, & Hopkins, 1995; Pearce, 2003) was most often arranged by a friend or boyfriend. A complementary personal interview was not possible because of the decision from the Human Research Ethics Committee that interviews would not be ethically acceptable.

In summary, the results corresponded well with the results obtained by Pedersen and Hegna (2003), especially as concerns the gender ratio and the strong association between different antisocial behaviors and the selling of sex. Our study also points to the link between this behavior and a highly sexualized existence. It is plausible to think that selling sex covers a broad spectrum of behavior from novelty seeking to acting out behavior with possible links to early sexual debut and to the adolescent's own sexual traumatization. It is difficult to establish a direct causal link between different background factors and selling sex. It seems more likely that these young people have experienced multiple problems during their childhood, and we therefore agree with West and Villiers (1992) who argued that any causal link is indirect with intervening connections. These intervening connections could be early sexual debut, sexual abuse, and different forms of somewhat adventurous activities such as breaking rules, antisocial behavior, and sexual offensive behavior.

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