


Original Article

Rapid assessment of high-risk sexual behavior in street children of Tehran

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Abstract

Background: Street children, due to their living and working conditions, are exposed to various injuries, and part of these are caused or exacerbated by engaging in high-risk behaviors. This study aimed to explore the sexual behaviors and their risks in street children.

Methods: This study was conducted in 2012-2013 in Tehran using a rapid assessment and response (RAR) method. Data were gathered from 289 street children (boys and girls), who were selected through time-location sampling (TLS) method, and 16 interviews with key informants and 13 group discussions with street children who were selected through purposive and snowball sampling methods.

Results: Among the study's participants, 8.7% (95%CI: 5.3-11.8) reported a history of sexual abuse and 21.1% (95%CI: 16.4-25.8) had experienced sexual relations, in which, 37.7% of cases used sexual protection.

Conclusion: The present study confirms the vulnerability of street children, the negative effects of environmental factors, and behavioral determinants of health and well-being. Further, it emphasizes the need for effective health interventions, particularly education and social support.

Keywords: Sexual Behavior; Sex Offenses; Social Support; Street Children

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Introduction

All definitions of the phenomenon of street children share just a common factor: they are those children who spend most of their time in the streets. The continuous or temporary presence in the street and sometimes living there has adverse consequences for children, some of them specifically dangerous. Several factors, including poverty, failure to achieve basic needs, lack of education, separation from parents, split family, lack of supervision and lack of identity, on the one hand, contribute to the vulnerability of

street children to abuse and sexual exploitation and, on the other hand, limit the benefit of services (1). The World Health Organization considers street children among the young groups at risk of HIV infection (2). The results of various studies also strongly emphasize the vulnerability of street children to HIV and other sexually transmitted diseases. A study of 1,151 male street children in 10 Pakistani cities showed that 71% of children had no information about the prevention of HIV/AIDS (3).

Another study in Malawi also identified a low level of knowledge about AIDS or other sexually transmitted diseases, experiences of high-risk sexual behavior and lack a safe place to spend the night as the factors that contribute to the vulnerability of children, especially those who are new to the street (4). In Ethiopia, physical and mental immaturity, ignorance, substance abuse, demands of street life and lack of legal controls of exposure to pornography and sex were the main causes of high-risk sexual behaviors in the male street children, and, also, 28.6% of them had been sexually abused (5).

Engaging in drug abuse also increases the vulnerability of children to sexual relations. A study on high-risk sexual behaviors in Ghana confirmed the relationship between drug abuse, such as alcohol, marijuana and other narcotics, and high-risk sexual behaviors (having regular sex, multiple partners, lack of use of condoms, sex for survival) (6). Another recent study in Ethiopia (2013) indicated that the use of the addictive chewed plant (khat) in street children was the known predictor of having multiple sexual partners (7).

Several studies in Iran have explored the consequences of living or working in the streets on the physical, mental and social health of street children (8), but few studies have explored the prevalence of high-risk sexual behaviors and HIV (8, 9- 10) or risk of HIV infection through addiction (11, 12- 13) or prostitution of street girls (14). However, based on the latest national report of the AIDS progress, evidence of an increased transmission of AIDS by sexual relations has been found, and high-risk sexual behaviors in adolescents, particularly in connection with the use of stimulants of the amphetamine-type, have shown an alarming growth in recent years (15). According to the National AIDS Secretariat of Working Group Committee (2011), the prevalence of AIDS in the street children of Tehran was about 4% to 5%, and this rate goes up to 9% among children who have used substances. The greatest

threats of the spread of AIDS in the country were street children at risk of HIV and sexually transmitted diseases and weaknesses of existing programs for street children, and the lack of precise information about high-risk behaviors in them challenges the possibility of any scientific planning. The epidemic of HIV in Iran is at the concentrated level, which has the potential to become a generalized epidemic if ignored and not targeted by countermeasures (15,16).

This article was part of extensive research that was conducted in 2013 to assess HIV-related, high-risk behaviors in street children to develop interventions to control and reduce HIV. In this regard, the sexual behaviors and their risks in street children were evaluated.

Methods

The rapid assessment and response (RAR) method was used in this study is a way to assess a public health issue rapidly. It includes the study of health problems, related behaviors, populations at risk, and problematic areas. This study presents the results of a qualitative and quantitative assessment of street children's high-risk sexual behaviors.

The study population consisted of Iranian and non-Iranian children who spent considerable time of the day in the streets of Tehran to work and/or live. Also, in the qualitative part of the study, the target population included key informants in the field of street children, including governmental experts and leaders of Non-Governmental Organizations (NGOs) that provide services to street children in Tehran and international organizations related to children in Iran. Sampling in the qualitative stage was done purposively, and the samples were selected from the non-governmental centers that provide services for this group of population. In the quantitative stage, the participants were recruited through a time-location sampling (TLS) method in 28 areas of Tehran, where the street children hang about or work.

In the qualitative part, 13 focus-group discussions with street children were conducted according to age (10 to 14 and 15 to 18), gender, and nationality (Iranian / non-Iranian), using a semi-structured questionnaire. Also, 16 in-depth interviews with key informants, including seven NGOs, the State Welfare Organization, the Tehran Municipality, the Ministry of Health and Medical Education, the United Nations Children's Fund (UNICEF) in Tehran and the United Nations Office on Drugs and Crime (UNODC), were conducted using a semi-structured questionnaire. The quantitative data were collected from a sample of 289 male and female children using a questionnaire at the workplaces and hangouts of street children in Tehran. A team of researchers, including experts who had questioning experience in interviewing children, completed the quantitative questionnaires (17).

Analysis of data from interviews and group discussions was conducted using the content analysis method. The gathered information was coded by open descriptive and Topic/Thematic Coding, and, based on the results of coding, the main categories were extracted. Using a constant comparison of the codes, similar categories were merged and were classified according to the aim of the study. In the quantitative part, data were entered into the software SPSS version 11, and, based on a variable level and types of analysis, relevant statistical tests were performed.

The Secretary of the Committee for the Prevention and Control of AIDS in the State Welfare Organization as the children's legal guardian permitted the research team to question the street children. The ethics committee at the University of Social Welfare and Rehabilitation Sciences reviewed the entire process of the study with the code: USWR.REC.93.1. In all group discussions, the aims of the sessions were clearly explained to children, and their right to participate or withdraw from the study was respected. Informed consent was

obtained from the children; they were told that they could use any name they wished to participate in the discussion, and they were free to enter or exit from the study at any time.

Results

Girls accounted for 25.5% of the participants, and the sample of 10- to 14-year-old children was about 45%. Of the total number of children, 37% were non-Iranian, mainly Afghan children. Also, from the total number of Iranian children, 44 (26%) of them were gypsies, which accounted for 15% of the total children. Among them, 34% were students, 40% had dropped out of school and about 24% had never gone to school. 76.8% of street children spent the night at either their own or relatives' homes, but 21% spent the night in the streets, support centers, workplaces, or houses shared with friends.

Sexual abuse:

Among the total children in the study (289), seven (2.4%) had run away from home because of sexual abuse, and 14 (4.8%) were sexually harassed while working on the streets. A total of 25 children (8.7%) were sexually abused in their homes, streets, or other places. Most of the people, who had sexually abused them, according to the statements of street children, were peers (7.3%), street drug users (3.5%), and people in the streets (2.4%), respectively. In group discussions, the children talked about their personal experiences of sexual abuse of girls and boys outside the homes.

- *From a discussion of 10- to 14-year-old Afghan boys: "There was someone, a man, saying, come into my home I give you rice. Then I realized we are close to the desert. I knew he wanted to do a bad thing... I swear at him, I said, I know what you want to do."*

Among demographic variables, only the education status of the children was significantly related to children's sexual abuse in a way that, among those who dropped out of schools,

Table 1. Features of sexual intercourse among street children

Features of Sexual Intercourse		N (%)
Sexual Experience (N=228)	Yes	61 (21.1)
	No	122 (42.2)
Type of Sexual Partner (N=61)	Non-respondent	105 (36.7)
	Heterosexual Intercourse	39 (63.9)
	Homosexual Intercourse	7 (11.5)
	Bisexual Intercourse	15 (24.6)
Age of Sexual Initiation (year)	Range	8 – 18
	Mean	13.3
	Median	14
	Mode	14
Place of Sex (N=39)	Child's Home	44 (44.4)
	Partner's Home	21 (33.8)
	Outside Places	9 (16.6)
Type of Sexual Intercourse (N=46)	Vaginal	63%
	Oral	57.7%
	Anal	60.9%
	All Three	28.3%

the experience of sexual abuse (16.2%) was significantly more than those children who were studying in school (2.9%) ($P=0.005$). The results of the qualitative part showed that children may experience sexual harassment as a single event in the streets or a continuous form. Family members, mostly, carry out continuous sexual abuse for girls, or sexual abuse may be experienced outside the home, but it is probably associated with the lowest level of protection and highest damage because of the possible violence. Officials of children organizations have pointed to these types of abuse and believe that, in reality, the issue is much more prevalent than what has been reported.

- *From an expert of a non-governmental organization: "Several of our children have been raped in the agricultural land around Shahr-e Ray, I think when 4-5 cases reported, it means much more is happening that we have just been notified about 4-5 of them."*

Fear of being sexually abused alerts children to some extent and prevents them from going to places where they may be abused. For some families, taking care of children by sending them to work in a group with older brothers and sisters is a way of reducing the risks for children in the street,

including sexual risks. Afghans take their girls off the street because of high risk after puberty. But the chances that the children work alone are greater than the chances for collective work, and the presence of other children may not be sufficient to protect them against risk.

Sexual relations and their features:

From the total number of children, 21.1% stated that they have experienced sexual relations. Some of the children (12.2%) were married, but also among unmarried street children, 19.3% (16.2% girls and 20.1% boys) had sexual relations. Some children (11.5%) pointed out homosexual contact. Table 1 shows the features and characteristics of their sexual relations.

From the perspectives of the informants, among the families of street children, those who belonged to ethnic minorities such as Lors, Kurds, and Turks were extremely sensitive toward their children's sexual relations, but the culture and lifestyle of Iranian gypsies are such that love and affection begin very early among young boys and girls and lead to marriage or sexual relations in early adolescence. As marriage is not registered among gypsies and girls may have multiple marriages, their sexual relations before and after marriage may not be limited to one sexual partner.

However, among Iranian children, no significant difference was observed between gypsy and non-gypsy children in terms of the prevalence of sexual activity ($P=0.097$).

Afghan families consider relations before marriage very inappropriate for girls and strongly control their daughters in terms of premarital or friendly relations.

- From a person in charge of a non-governmental center: "Among Afghan families, I have not seen that Afghan girls to have multiple sexual partners, at maximum, they run away by a guy at not a very young age and live with him."

But, among Afghan boys, there is premarital sex with girls as well as boys. In

group discussions, older Afghan boys stated that having a girlfriend is considered an advantage for Afghan boys.

- From a group discussion of 14- to 18-year-old Afghan boys: "Hanging around together, it is more showing off. He talks with a girl and says to other boys, 'Don't you have a girlfriend?' Hugging and these things are typical."

Among Afghan boys, homosexual relationships, called "child play", are developed mostly among adult men or older boys with younger boys. Afghan younger boys said they have received offers of sex in exchange for money by men.

Table 2. The determinant of sexual behavior (having sex) in street children

Sexual Experience (Ever had sex)	Yes	No	P	Chi ²
Ages				
10-14	15.20%	84.80%	0.001	24.083
15-18	51.10%	48.90%		
Nationality				
Iranian	40%	60%	0.034	3.526
Afghan	25%	75%		
School Attendance				
Attending	20.40%	79.60%	0.009	7.347
Non-attendance	41.80%	58.20%		
Night-time Residence				
Family	29.60%	70.40%	0.044	6.244
Friends or Workplace	46.40%	53.60%		
Parks or Ruined	57.10%	42.90%		
Running Away				
Yes	58.90%	41.10%	0.000	17.322
No	25.30%	74.70%		
Used Drugs				
Yes	94.70%	5.30%	0.000	33.057
No	28%	72%		
Drinking Alcohol				
Yes	80.80%	19.20%	0.000	27.730
No	27.30%	72.70%		
Smoking				
Yes	73.90%	26.10%	0.000	17.353
No	29.40%	70.60%		

- *From a group discussion of 10- to 14-year-old Afghan boys: "Child play means that, hugging me the first time he sees me. Sometimes I'm happy with it. He does bad things to us. Someone said I'll give you each 500,000 Rials (\$ 20) and took two children."*

Among the demographic variables, there was a significant relationship between age, nationality, education status, sleeping place of children, and history of leaving home with sexual experience (Table 2). Among children in the study, 74 (25.6%) reported that they have smoked cigarettes and/or used drugs and/or alcohol. Between drugs, alcohol and tobacco use and having sex, there was also a significant relationship (Table 2).

The average age of the onset of sex in street children was 13.3 years (12.5 years for females and 13.7 years for males) (Table 1). Among married children who responded to questions about their first sexual partner (n = 23), only 13 of them (56%) had experienced their first sexual relations after marriage, and 44% of them had experienced sexual relations before marriage. Non-married children had the most sexual relations with strangers (23.2%), such as prostitutes, runaway girls and addicts, and then with peers and local friends and then girlfriends/boyfriends. Twenty children (35.7%) stated that their first sexual relations were rape.

The most common places where sex took place included the child's home (44.4%), followed by the home/location of the sexual partner (such as a girlfriend/boyfriend's place, a safe house or a house of prostitution) and public places, such as parks, ruins, and streets (Table 1). Boys pointed to the relationship between older boys with prostitutes. For sex with female sex workers or prostitutes, boys went to prostitutes' home or took women to a place where several people would have sexual relations with her. Boys also referred to a bathroom outside the home (Turkish bath) as a place to have sex with women.

Identifying the risks and protection:

According to informants and children's experiences, although the majority of street children recognized sexual relations at an early age and some experienced them, they lacked the required information and motivation to protect themselves against the risks of sexual relations. Among children who have had sexual relations, 24.5% believed that sex was not dangerous. Among others, the highest risk of sexual relations included AIDS (39.3%), pregnancy (32.7%), and sexually transmitted diseases (STDs) (26.2%).

Children, especially younger children, did not have much information about the risks of sexual relations. They mainly pointed to the risks of girls losing their virginity and pregnancy and its consequences, such as having to escape from home and execution, but they did not know anything about sexually transmitted diseases and AIDS. Young gypsy girls who had seen sexual relations more and were more likely to experience them had the highest knowledge about risks of sexual relations, such as pregnancy, coma, and death, due to sex with adults.

For older Afghan boys (14 to 18 years old), the highest risks included pregnancy and its consequences, such as running away from home or being forced to marry a sexual partner, and getting sick, which is identified by blood in the urine. They have heard of AIDS, but they had incorrect information about it. For example, they said AIDS causes spinal cord injury. Older Afghan girls also knew of AIDS and had some education about it, but they did not know the ways of its transmission. Some of the older Iranian boys and girls also knew AIDS and its ways of transmission to some extent.

- *From a group discussion of Iranian boys: "It comes from addiction, the addicts and syringe. It also comes from dirtiness, they sleep rough. They get it from sex, things that they eat, or touch. It is transmitted even by shaking hands. It is a contagious disease that has no*

cure and can kill within a few days, weeks, or months, like dogs.”

The use of condoms:

Children had little knowledge about protection against risks of sexual relations and did not pay much attention to it. Among the children who had sexual experience, 23 (37.7%) children had approved the use of condoms in sexual relations, and in 40% of those cases, they always used condoms, while in 60% of the cases, they sometimes used them. The most common reasons for not using condoms were as follows: not necessary to use (20.3%), dislike (17.4%), and lack of knowledge about condoms (15.9%).

According to the in-depth interviews, children believed that the highest risks in sexual relations were the loss of virginity and pregnancy. The children focused on the prevention of these two issues, and the most important strategy for them was having anal sex instead of vaginal sex. One of the Iranian girls stated that Iranian girls most often use condoms in sexual relations, but they see that more as a contraceptive strategy. Gypsy girls also tried to have only dry or anal sex to preserve their virginity.

- From a group discussion of gypsy girls (10 to 14 years old): “Our girls who have boyfriend, they kiss but they never lose their “namoos” (virginity). They do anything but they keep their virginity.”

Based on the experiences of non-governmental experts, the main concern of children was vaginal sex, and they did not use condoms with anal sex.

- From an expert of a non-governmental center: “They have heard of condoms, but they think it is just to avoid pregnancy. We do not have vaginal sex and have only anal sex, so there is no need to use condoms. They see vaginal sex as the main cause of sex-related risks and do not consider other sexual relations dangerous. They think, as long as they keep their virginity, they are safe from risks.”

According to an NGO volunteer, pregnancy rarely happens among gypsy girls before marriage, and if it occurs, it will lead to marriage. Generally, after marriage, the fear of losing virginity and pregnancy vanishes, and the likelihood of protection and use of condoms decreases significantly. Most Gypsy girls knew about condoms and how to use them, but often their sexual partners did not use condoms. Gypsy boys had a negative attitude toward the use of condoms and considered their use shameful.

- From an expert of an NGO: “One of the girls who had caught infection said her husband should use condoms. Her husband told me you can insult me but don’t tell me that I should use condoms. In our culture, it is shameful to use condoms, and if your wife tells you to use a condom, it means she likes someone else.”

Older boys who had relationships with female sex workers did not use protection in their sexual relations and considered the use of condoms embarrassing, so they did not use condoms in their relationships. But some children talked about the use of condoms in sexual relations with female sex workers. Among street children that attended school, consistent condom use was significantly more (45.5%) than among street children out of education (12.5%) ($P=0.046$). Also, 62.5% of street children outside of education and 27.3% of street children who were studying reported that they never use condoms ($P<0.001$). (Table 3).

Discussion

In general, children’s sexual relations can be separated and conceptualized into two categories: mandatory and voluntary sexual relations. This study was one of the few studies that explored children’s sexual relations by using both quantitative and qualitative methods.

In this study, the prevalence of sexual abuse was found to be 8.7%, which is lower than the results of some of the similar studies in Iran and other countries. A systematic review of studies of street children indicated the prevalence of sexual abuse at 1.6% to 27% (18), and in another study in Tehran, it was 14.2% (9). However, in the study of the Tehran Municipality, the prevalence of sexual abuse of street children in Tehran was reported to be 1% (19).

The reason for this difference could be due to asking different questions related to sexual abuse, a different combination of participants in terms of age, sex, and definition of street children, such as working children who were not living on the street in the study of Shoghli et al. (9). In the Pakistan Freedom Foundation study of street children (3), rape and sexual abuse

was 76%; in Ethiopia, it was 28.6% (5), and in a study in Delhi, it was 38% (20). In a study in Ghana (6), sexual and physical abuse of street children was reported to be 76% and 25%, respectively. In a study in Brazil (21), this figure was 24.5% for boys and 18.2% for girls.

The experience of abuse in girls and boys, in both Iranian and non-Iranian children, did not show a significant difference, which indicated that no group had priority over other groups in terms of interventions. Since the only protective factor against sexual abuse of street children was education level, the effort to enable street children to attend and stay in education can be seriously considered in child abuse prevention programs and the prevention of AIDS and other social problems. The findings of the Madani et al. study (14) showed that 48.6% of prostituted

Table 3. Determinants of protection in sexual intercourse among street children

Condom Use	Yes	No	P	Chi ²
Nationality				
Iranian	40%	60%	0.034	3.526
Afghan	25%	75%		
School Attendance				
Attending	20.40%	79.60%	0.009	7.347
Non-attendance	41.80%	58.20%		
Night-time Residence				
Family	29.60%	70.40%	0.044	6.244
Friends or Workplace	46.40%	53.60%		
Parks or Ruined	57.10%	42.90%		
Running Away				
Yes	58.90%	41.10%	0.000	17.322
No	25.30%	74.70%		
Used Drugs				
Yes	94.70%	5.30%	0.000	33.057
No	28%	72%		
Drink Alcohol				
Yes	80.80%	19.20%	0.000	27.730
No	27.30%	72.70%		
Smoking				
Yes	73.90%	26.10%	0.000	17.353
No	29.40%	70.60%		

children have had a history of being sexually abused in childhood; i.e., sexual abuse is a risk factor for child prostitution. In the present study, the prevalence of sexual relations in children was 21.1%, which is still lower than in other similar studies. Furthermore, in only 37.7% of these relationships, sexual protection was used. A study in Pakistan showed that 83% of street children were sexually active, and 13% used condoms (3). In a study conducted in Ghana (6), about 69.3% of children stated they had sexual relationships during the last month, in which protection was used in only 17.1% of the cases. In the study of Gondar in Northeastern Ethiopia (7), 61.7% of the participants had sexual relations.

According to the findings of Shoghli et al. (9), a total of 54.1% of children have had sexual relations. This figure in the age group of 10 to 14 years was 29.1%, and in the age group of 15-18 years, it was 38.6%. Also, among children who had sexual relations, only 33.2% used condoms during the last sexual relationship.

According to a study of the general population of 15 to 24-year-olds (12), in seven cities of Iran, 21% of boys and 5.5% of girls had sexual relations outside of marriage. According to the study of Hosseini et al. (22), among 15- to 29-year-old single boys and girls, 6.5% of girls and 20% of boys had sexual intercourse. Thus, it seems that the prevalence of sexual relations in street children, especially among girls, is higher than in the general population. Since some of the street children were married, this high prevalence of sexual relations among street children might have been expected. But the findings of a study on unmarried children also showed that 19.3% (20.1% boys and 16.2% girls) had sexual relations, which, according to the study's age group (10 to 18 years), compared with the two studies of the general population, was still higher, especially among girls.

In the present study, the prevalence of sexual relations was higher among Iranian

children compared to Afghan children, which is consistent with the findings of the qualitative part of the study. However, unlike the qualitative results regarding the high prevalence of sexual relations among gypsy children, a significant difference was not observed between Iranian gypsy and non-gypsy children in terms of the prevalence of sexual relations. Further studies are needed, but it seems that the belief of others about gypsy children is more exaggerated than reality.

The study findings suggest that the high incidence of sexual behavior, homosexual relationships, high-risk sexual relations, multiple sexual partners and the use of condoms in children who had the experience of sexual relations were 37.7%, which, in 40% and 60% of cases, were always and sometimes, respectively, which shows that the majority of children did not know anything about ways of AIDS transmission and prevention. According to the findings of Shoghli et al. (9), 57.6% of 15- to 18-year-old children had sex with more than one partner in the last 12 months, and only 10.8% of 15- to 18-year-old street children were conscious of the transmission of HIV/AIDS.

The findings showed that street children were at high risk of developing AIDS-related diseases, especially due to sexual relations. High prevalence of sexual relations and having this type of behavior at a young age among street children confirm that measures against high-risk behaviors of street children must start at a young age, and three principles should be considered with them: delay first sexual relations, limit sexual relations to certain (safe) persons and use protection in sexual relations. These are the same principles of the triple strategy of prevention of HIV/AIDS, known as the ABC strategy: Abstinence, Be faithful, and Condom use (23).

Being out of school, having a history of leaving home, alcohol consumption, smoking, and sexual relations were among the risk factors; therefore, investing in children's access to education, interventions

related to drug use, measures reducing leaving home by improving family relationships and strengthening the safety net seems necessary for reduction of sexual relations and their consequences.

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Conflict of interest

Authors declare no conflict of interests.

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